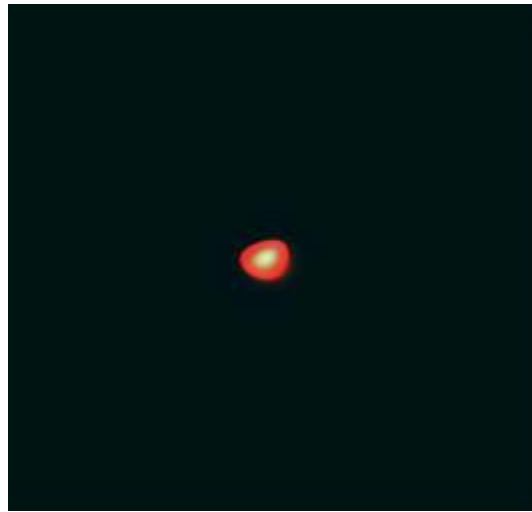


Traitement d'images solaires, lunaires et planétaires

Julien Dompierre

12 décembre 2017

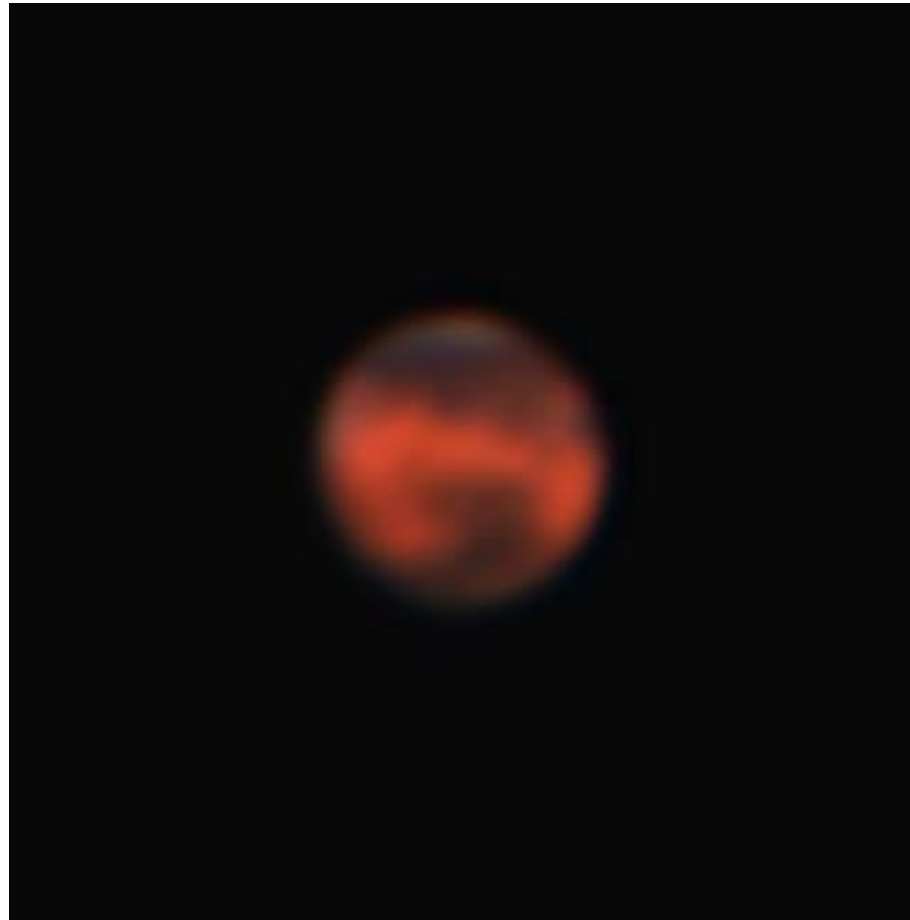
Mercure



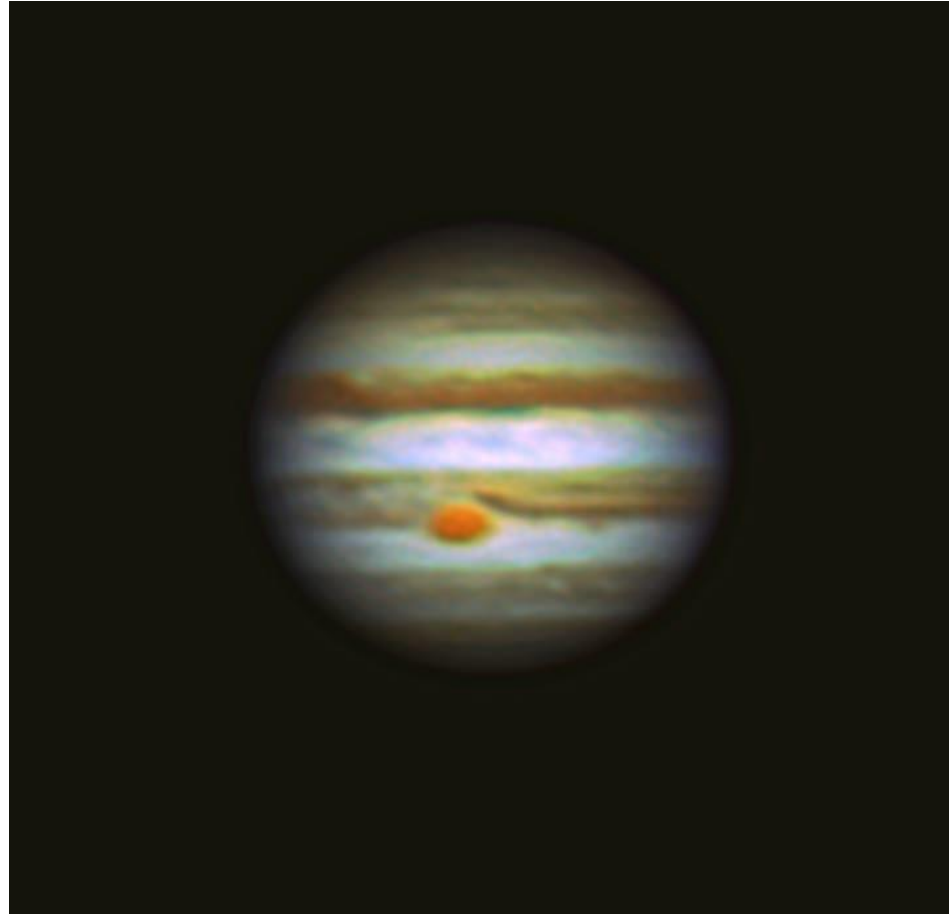
Venus



Mars



Jupiter



Saturne



Uranus



Stellarium 0.15.0

Uranus

Type : planète
Magnitude : 5.72 (après atténuation : 5.89)
Magnitude absolue : 30.88
AD/Dec (J2000.0) : 1h18m21.55s/+7°35'37.2"
AD/Dec (de la date) : 1h19m15.05s/+7°40'55.6"
Angle horaire/dec : 23h16m52.62s/+7°41'43.1" (apparent)
Az/Haut : +162°50'53.8"/+51°03'18.9" (apparent)
Longitude/latitude écliptique (J2000.0) : +20°55'49.4"/-0°37'39.9"
Longitude/latitude écliptique (de la date) : +21°11'06.3"/-0°37'39.7"
Obliquité de l'écliptique (de la date) : +23°26'14"
Longitude/latitude galactique : +134°31'15.2"/-54°40'16.3"

Temps sidéral moyen : 0h36m7.4s
Temps sidéral apparent : 0h36m7.0s
Distance du Soleil : 19.1945AU (2903.674 mio km)
Distance : 19.147 AU (2864.277 mio km)
Diamètre apparent : +0°00'03.7", avec anneaux : +0°00'14.1"
Période sidérale : 30685.00 jours (84.011 a)
Jour sidéral : 17h14m24.0s
Jour sidéral moyen : 17h14m22.5s
Angle de phase : +1°42'28"
Élongation : +143°00'57"
Phase : 1.00
Illumination : 100.0%

Uranus

HIP 5995

HIP 6154

HIP 6038

HIP 5984

88 Psc

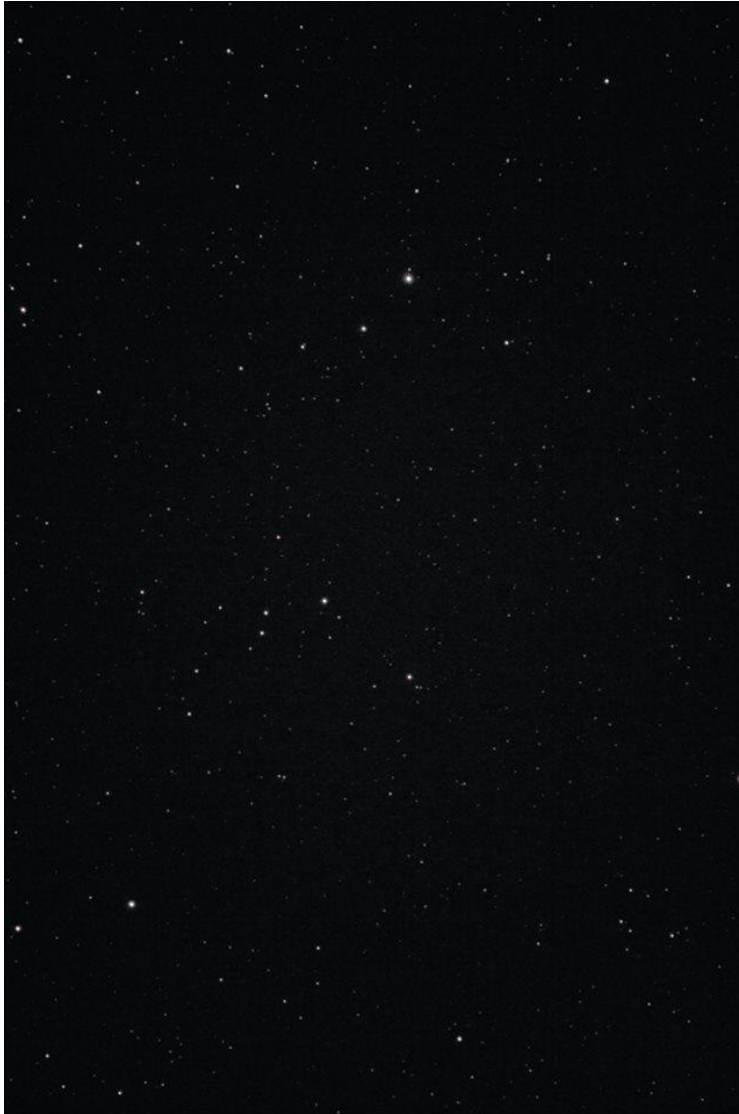
Psc A

Ecliptique (J2000.0)

Date et heure : 2016 / 11 / 19 20 : 32 : 27
Jour julien : 2457700.5000000

Terre, Montreal, 216 m FOV 1.53° 15.9 FPS 2016-11-19 20:32:27 UTC-05:00

Neptune



Stellarium 0.15.0

Neptune

Type : planète
Magnitude : 7.88 (après atténuation : 8.14)
Magnitude absolue : 32.08
AD/dec (J2000.0) : 22h43m44.06s / -8°59'45.8"
AD/dec (de la date) : 22h43m37.53s / -8°58'20.0"
Angle horaire/dec : 1h51m26.83s / -8°5'44.8" (apparent)
Az/Haut : +212°16'08.4" / +30°08'03.7" (apparent)
Longitude/latitude écliptique (J2000.0) : +339°00'23.47" / -0°51'59.3"
Longitude/latitude écliptique (de la date) : +339°14'40.27" / -0°51'58.4"
Orbite de l'écliptique (de la date) : +23°26'14"
Longitude/latitude galactique : +52°53'20.07" / -54°49'20.8"
Temps sidéral moyen : 0h36m7.4s
Temps sidéral apparent : 0h36m7.0s
Distance du Soleil : 29.952AU (4480.825 mio km)
Distance : 29.747 AU (4450.073 mio km)
Diamètre apparent : +0°00'02.3" avec anneaux : +0°00'05.8"
Période sidérale : 60189.00 jours (164.79 a)
Jour sidéral : 16h6m36.0s
Jour solaire moyen : 16h6m36.6s
Angle de phase : +14°51'50"
Elongation : +10°04'43"
Phase : 1.00
Illumination : 100.0%

HIP 112166
HIP 112199
HIP 112156
HIP 112346
HIP 112425

Écliptique (J2000.0)

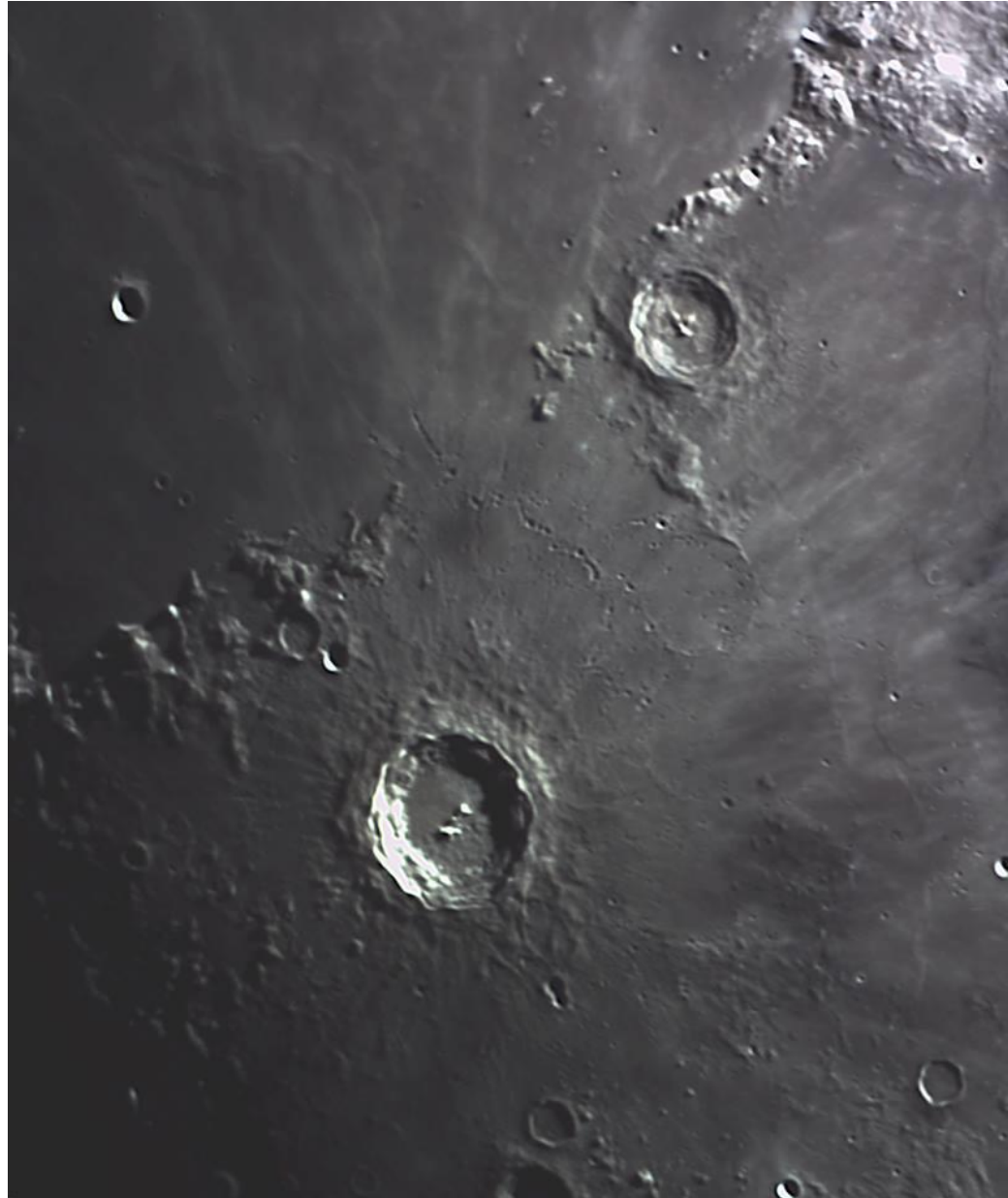
Date et heure
Date et heure
2016 / 11 / 19 20 : 32 : 27

Terre, Montréal, 216 m FOV 1.81° 15.4 FPS 2016-11-19 20:32:27 UTC-05:00

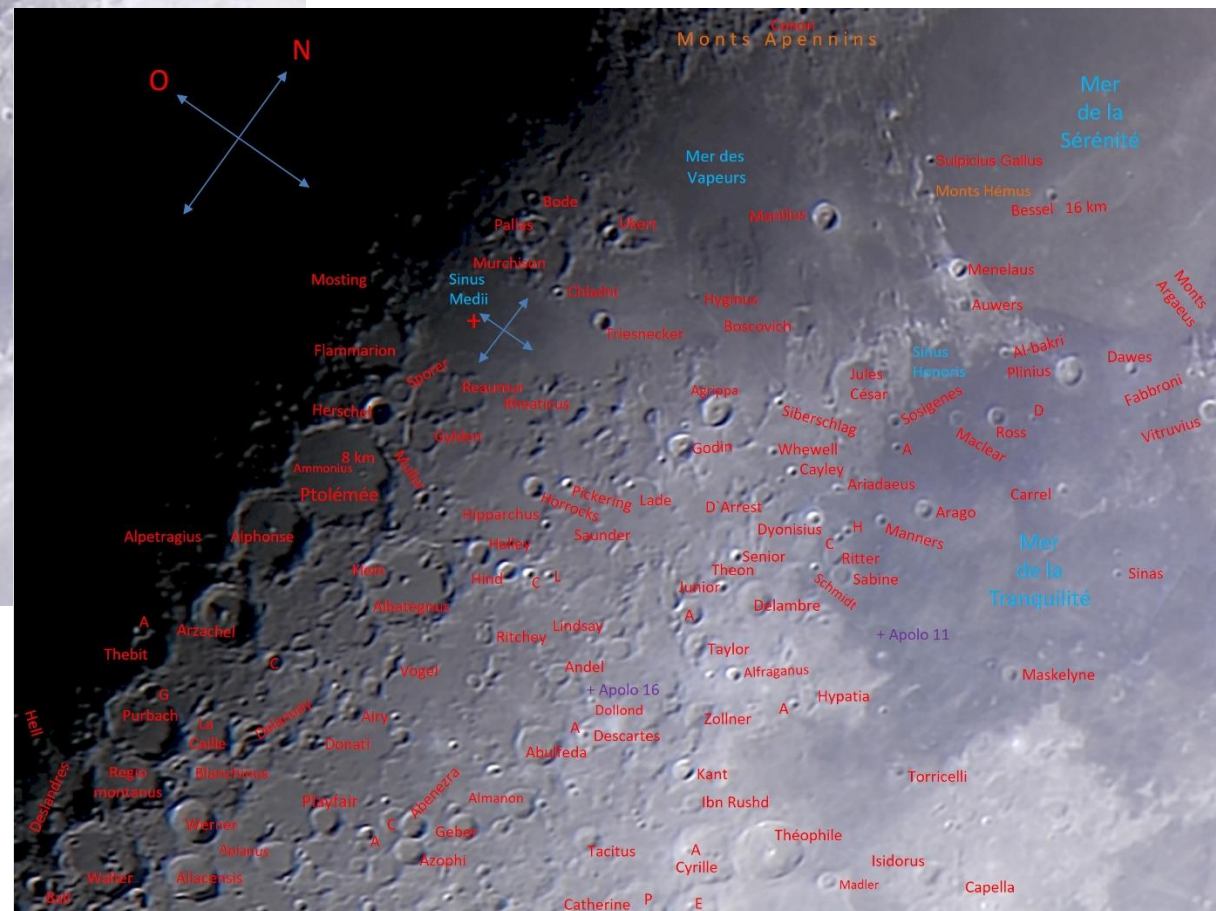
Lune



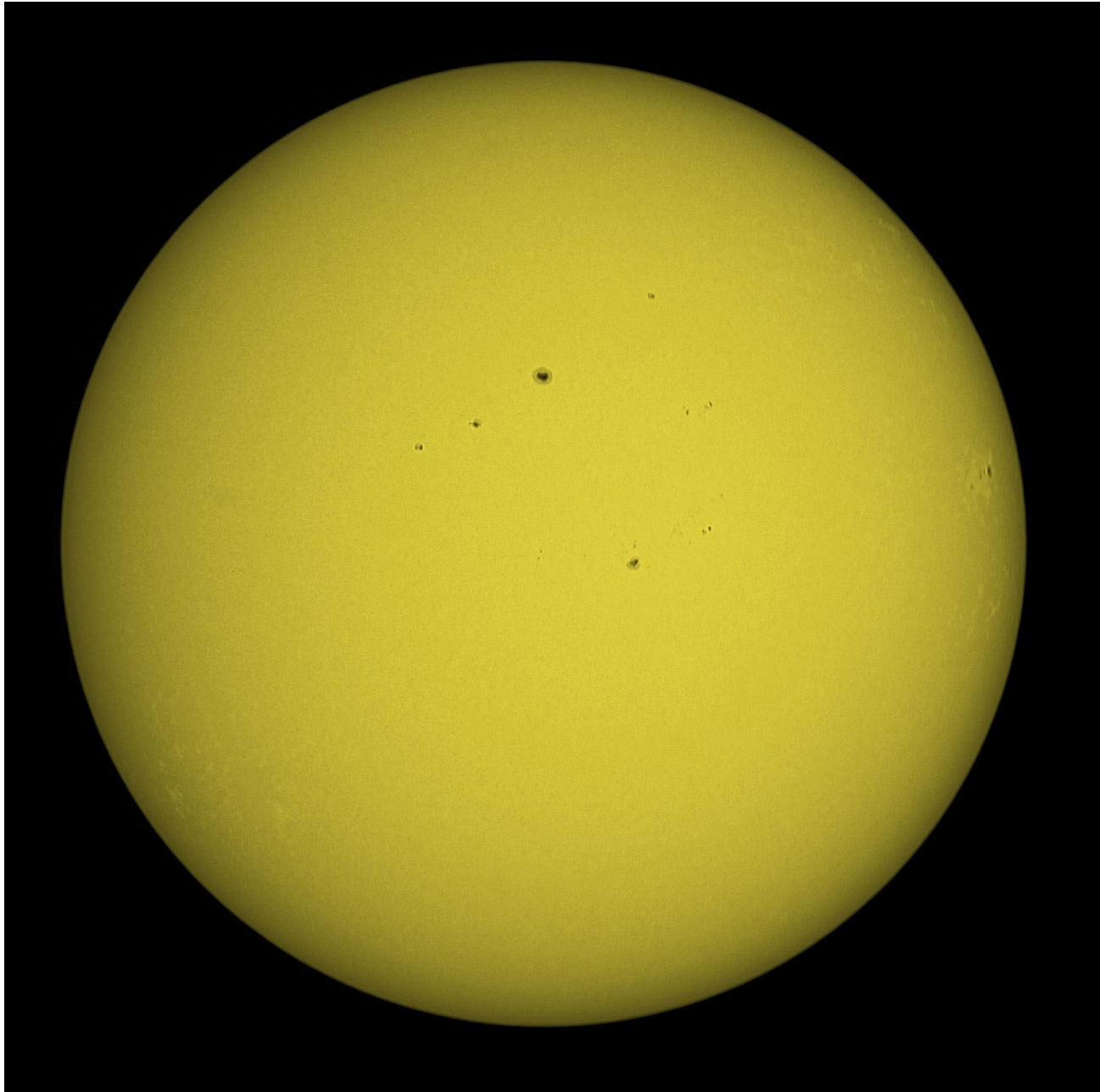
Lune



Lune



Soleil



Soleil



Soleil



M45



M33



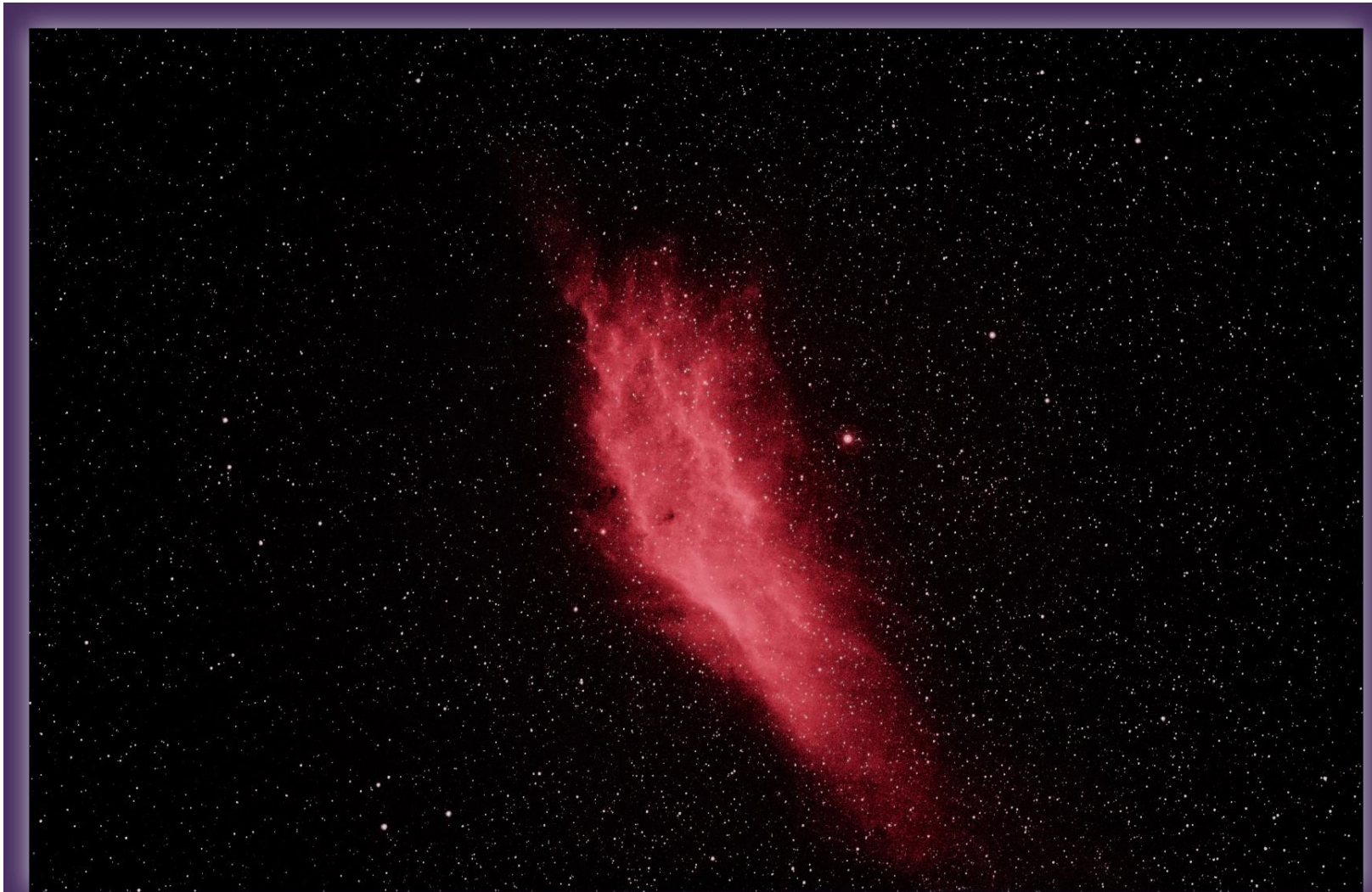
M42



Nébuleuse d'Orion - M42 et M43
Nébuleuse du Coureur - Sh2-279

Julien Dompierre, 17 novembre 2017, St-Valérien-de-Milton
William Optics GTF 81mm f5.9 sur iOptron iEQ30 Pro
Canon T3i, ISO 2500, 24x60s plus 20 darks

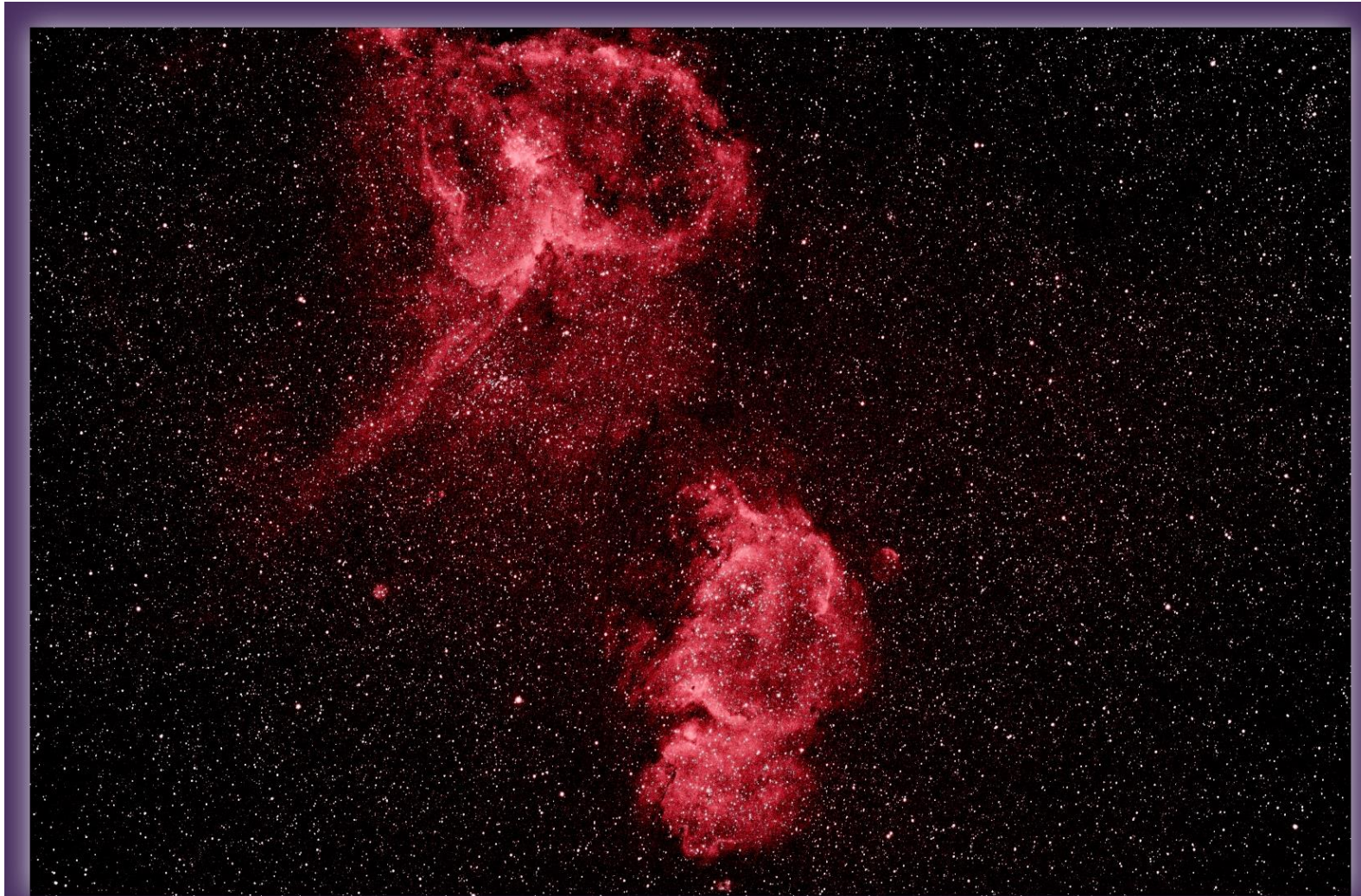
Nébuleuse Californie



Nébuleuse Californie - NGC 1499

Julien Dompierre, 17 novembre 2017, St-Valérien-de-Milton
Lentille Canon FD 200mm f2.8 sur iOptron ZEQ25GT
Canon 60D défiltré, filtre Astronomik H α , ISO 3200, 14x120s, 5 darks

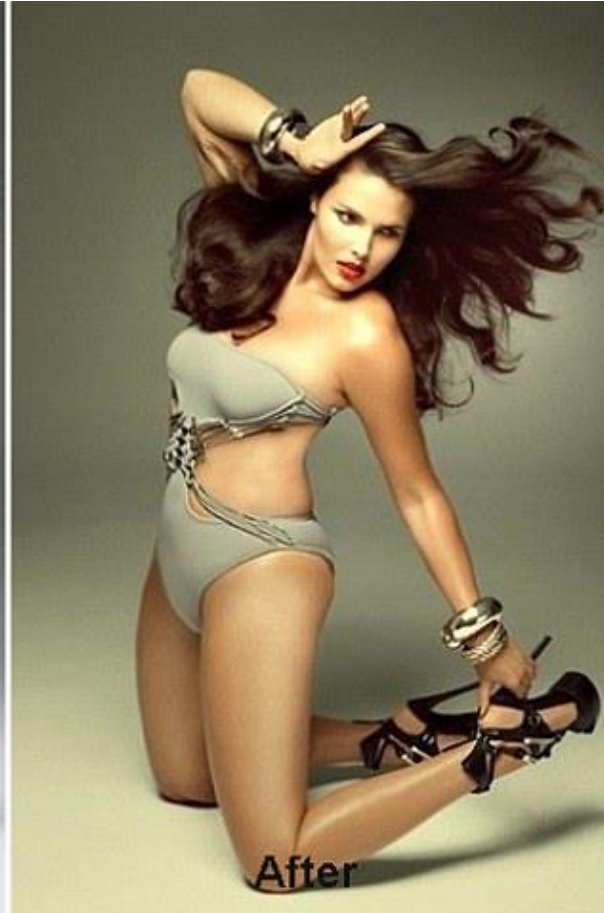
Nébuleuse du Cœur et de l'Âme



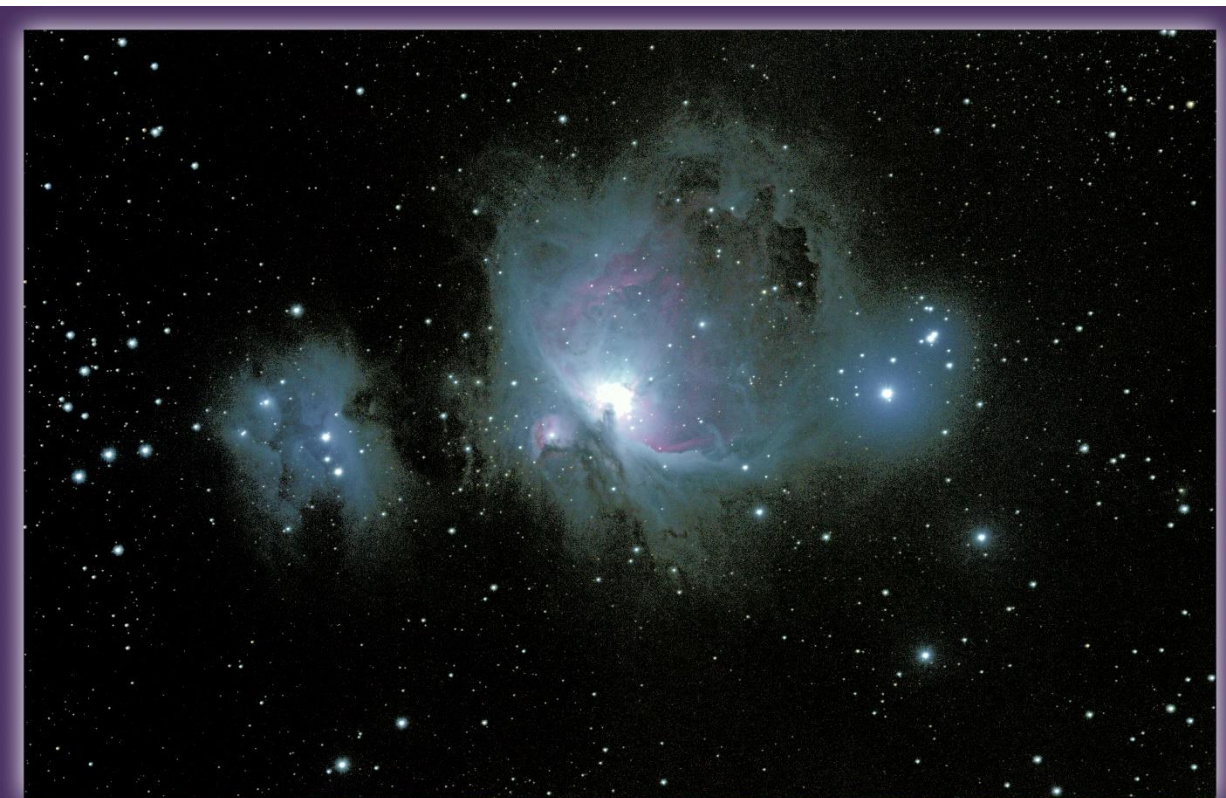
Nébuleuse du coeur - IC 1805
Nébuleuse de l'âme - IC 1848

Julien Dompierre, 17 novembre 2017, St-Valérien-de-Milton
Lentille Canon FD 200mm f2.8 sur iOptron ZEQ25GT
Canon 60D défiltré, filtre Astronomik H α , ISO 3200, 23x120s, 10 darks

Tout est photoshopé !-(-



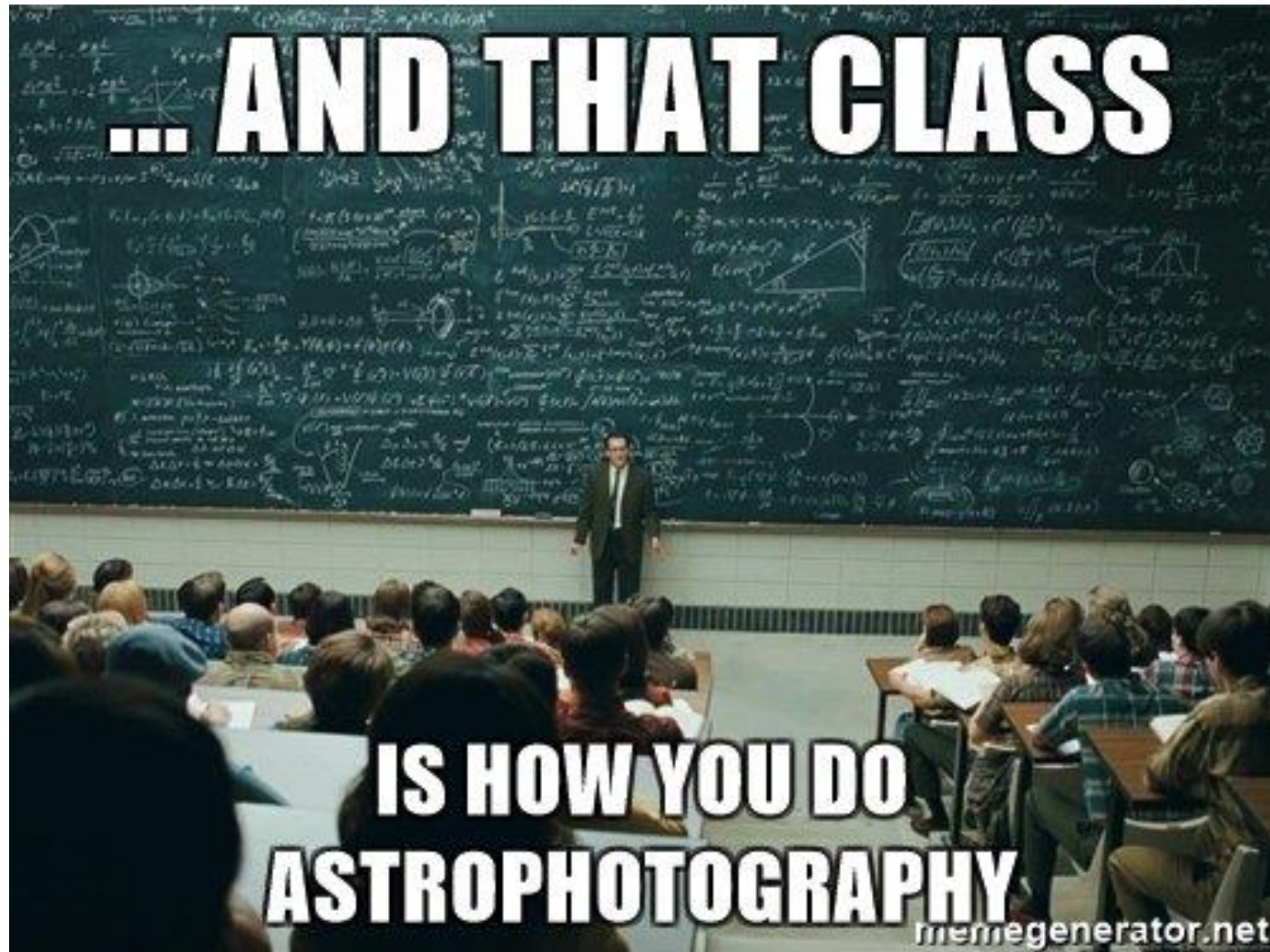
Tout est photoshopé !-)



Nébuleuse d'Orion - M42 et M43
Nébuleuse du Coureur - Sh2-279

Julien Dompierre, 17 novembre 2017, St-Valérien-de-Milton
William Optics GTF 81mm f5.9 sur iOptron iEQ30 Pro
Canon T3i, ISO 2500, 24x60s plus 20 darks

Traitement d'images
solaires, lunaires et planétaires



Traitement d'images planétaires, solaires et lunaires

- **POURQUOI ?**
 - **PARCE QUE CELA SE FAIT DE MONTRÉAL**
 - **PAS BESOIN D'AUTOGUIDAGE**
- Références
- Matériel utilisé
- Notions d'alignement, d'empilement et de traitement
- Alignement (Castrator, Autostakker, PIPP, timelapse)
- Empilement
- Traitement
 - HDR
 - Mosaïque
 - Saturation
 - Flats (PLU)
 - Alignement des canaux
 - Ondelettes (Registax)

Je **ne** parlerai **pas** du traitement d'images pour le ciel profond

- Sujet beaucoup trop vaste
- Déjà abordé par Patrice Scatollin et Roger Gagnon
- D'autres problèmes, d'autres méthodes, d'autres logiciels
 - DeepSkyStacker 3.3.6 (deepskystacker.free.fr/french/)
 - Iris 5.59 (www.astrosurf.com/buil/iris/iris.htm)
 - Siril 0.9.7 (free-astro.org/index.php?title=Siril/fr)
 - PixInsight 1.8.5 (pixinsight.com/)
 - MaximDL (diffractionlimited.com/product/maxim-dl/)

Ma page Facebook

Facebook profile page for Julien Dompierre. The page header shows the name "Julien Dompierre" and navigation options like "Accueil" and "Retrouver des amis".

The main content area features a post with the text: "Au niveau équipement, la prochaine grande étape que je dois réaliser est l'utilisation de l'autoguidage pour franchir la frontière des 2 minutes d'exposition."

The post includes a large image of a red nebula, captioned "Nébuluse du Cône - NGC 2264". The caption also lists the equipment used: "Julien dompierre, 17 novembre 2017, St-Valérien-de-Milton, Lentille Canon FD 200mm f2.8 sur iOptron ZEQ25GT, Canon 60D désétre, filtre Astronomik, Hz, ISO 3200, 14x120s, 10 darks".

Below the image are interaction options: "J'aime", "Commenter", and "Partager". The post has been liked by "Patrice Scattolin" and has "2 partages".

The "Photos" section on the left shows a grid of images from an event, likely a telescope demonstration or workshop, featuring various people and astronomical equipment.

At the bottom, the post is attributed to "Julien Dompierre" on "1 décembre, à 22:54". The text below the post reads: "Même soirée, le vendredi 17 novembre 2017, même lieu, St-Valérien-de-.....".

Page Facebook des astronomes amateurs du Québec

Rechercher

Julien Accueil Retrouver des amis

Julien Dompierre

Fil de nouvelles

Messenger

Marketplace

Raccourcis

Astronomes Amate... 7

AstroMatos 1

Explorer

Évènements

Pages

Groupes 1

Activité publicitaire ...

Listes d'amis

Enregistré

Ce jour-là

Fil de Pages 1

Retrouver des amis

Photos

Afficher plus...

Créer

Publicité · Page · Groupe · Événement · Levée de fonds


Daniel Leclerc Lunar 101-Moon Book
7 décembre, à 06:30 · 🌐

We can see a part of Mare Humboldtianum, which is located along the limb of the Moon on the right of my image, and continues on to the far side.
December 4 2017, 6:02 AM.


❄️ ❄️ ❄️ --- ❄️ ❄️ ❄️

- Canon SX60 HS; 1/400 sec, F/6.5, ISO-100.
- 50 photos were stacked.


[Voir la traduction](#)



Daniel Leclerc
6 décembre, à 05:57 · 🌐



Propriétaires seulement
ristoume-energetique-quebec.com
Économisez des milliers de dollars grâce aux subventions et programmes en vigueur



MICRO SCALP CLINIC in MONTREAL
www.microscalpclinic.ca
At Micro Scalp Clinic we provide scalp micro pigmentation services to clients with hair-lo...

Français (Canada) · Français (France) · English (US) · Español · Português (Brasil)

Confidentialité · Conditions d'utilisation · Publicité · Choix publicitaires · Cookies · Plus · Facebook © 2017

Page Facebook de la SAM

Facebook page interface for "La société d'astronomie de Montréal".

Page Header: La société d'astronomie de Montréal | Julien | Accueil | Retrouver des amis

Left Sidebar:

- Logo: SAM CFSRAC, www.lasam.ca
- La société d'astronomie de Montréal
- Accueil
- À propos
- Évènements
- Photos
- Communauté
- Avis
- Publications
- Publicités
- Créer une page

Main Content:

Je vous souhaite la chance de voir Mme. Bell en conférence.

Pulsars were discovered 50 years ago | EarthSky.org
In 1967, while helping analyze data from a new telescope, Cambridge student Jocelyn Bell observed a bit of
EARTHSKY.ORG


La société d'astronomie de Montréal a partagé votre publication.
30 novembre, à 00:32

Nébuleuse du coeur - IC 1805
Julien Dompierre, 17 novembre 2017, St-Valérien-de-Milton
Lentille Canon FD 200mm f2.8 sur iOptron ZE-Q25GT
Canon 60D défiltré, filtre Astronomik H α , ISO 3200, 23x120s, 10 darks

Right Sidebar:

- Envoyer un message
- Partagez votre opinion à propos de La société d'astronomie de Montréal!
Patrice Scattolin a indiqué se trouver ici avec vous le 23 février
- D'autres personnes aiment également:
 - Club d'astronomie ... Organisme communautaire
 - Dans le ciel ce soir Communauté
 - Lire la Nature Inc. &... Commerces de détail
- Langues: Français (Canada) · Français (France) · English (US) · Español · Português (Brasil)
- Confidentialité · Conditions d'utilisation · Publicité · Choix publicitaires · Cookies · Plus · Facebook © 2017

Ma page Youtube

 **Julien Dompierre**
8 abonnés

[PERSONNALISER LA CHAÎNE](#) [CREATOR STUDIO](#)

[ACCUEIL](#)

Vidéos en ligne Publique TOUT REGARDER

 3:06	 0:29	 0:28	 0:25	 0:13
Éclipse solaire de 21 août 2017 en 360 degrés 115 vues • il y a 2 mois	Crépuscule sur la maison rouge 38 vues • il y a 1 an	Astronomy time lapse at Morgan Arboretum, Ste- 135 vues • il y a 2 ans	St Valerien 2015 05 17 75 vues • il y a 2 ans	Timelapse du ciel nocturne à l'Observatoire Alphonse- 114 vues • il y a 3 ans

Vidéos "J'aime" TOUT REGARDER

 31:28	 0:23	 2:21	 0:05	 0:54
Découverte du ciel, saison 2, camp jeunes biologistes, Mario Lapointe 35 vues • il y a 11 mois	Heritage 130p light shroud Monti841 3,5 k vues • il y a 4 ans	Super Mario Br'Hausse Jérémie Larouche 205 k vues • il y a 5 ans	Time lapse of the partial solar eclipse of May 20, Julien Dompierre 171 vues • il y a 5 ans	Tebowing: A Time-lapse Sam Thompson 6 k vues • il y a 6 ans

Le site web d'Alan Dyer

THE AMAZING SKY

Astronomy author and photographer Alan Dyer presents amazing sky sights

POSTS

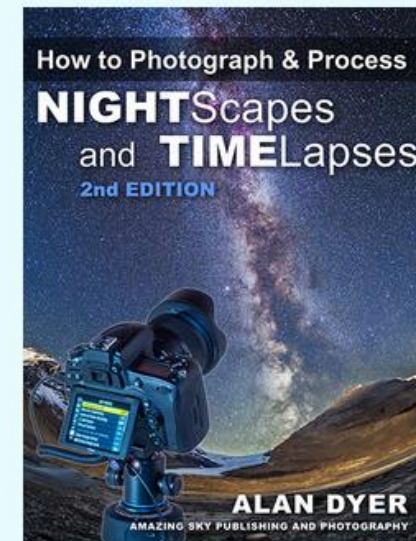
DECEMBER 6, 2017

Testing 10 Photoshop Contenders

★★★★☆ 15 Votes



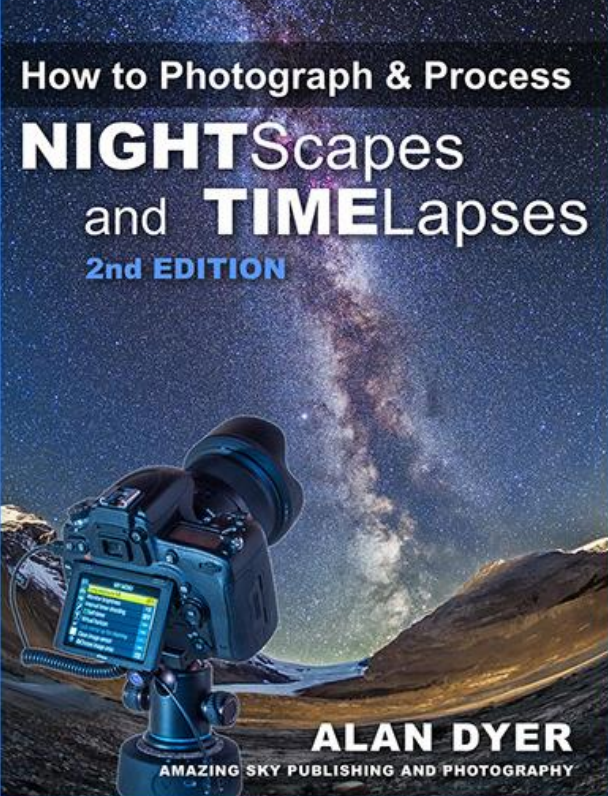
CHECK OUT MY EBOOK



On the Apple iBookstore. [Click to learn more.](#)

How to Photograph and Process Nightscapes and timelapses


amazingsky aboutAlan books ▾ photography ▾ workshops ▾ talks blog & sky info contact



**How to Photograph & Process
NIGHTScapes
and TIMElapses
2nd EDITION**

ALAN DYER
AMAZING SKY PUBLISHING AND PHOTOGRAPHY

CANON VS. NIKON



Canon Pros and Cons
A decade ago Canon's lowest noise specs quickly made it the favored brand among amateur astrophotographers and anyone doing long exposure imaging with DSLRs. Because of that early lead, more astrophotographers use Canon than Nikon, and as the brand is better supported by makers of time-lapse control gear and software.

PROS
✔ Works with GBTimeLapse advanced control software, and all hardware controllers for motion control devices. Canon cameras are always supported.

Nikon Pros and Cons
Nikon has come a long way, and its current models of DSLRs offer as good, if not better, noise characteristics as the competitive Canon models. Gone are the days when Nikon was accused of "red-eye" as a result of overly aggressive noise reduction even in their Raw files. Yet, you still hear Nikon being accused of this.

PROS
✔ Many Nikons (but only the newest Canons) have built-in intervalometers. Nikon also has a useful "Exposure Bracketing" option which reduces flicker in auto-exposure time-lapses. However, exposures are still seconds minimum.

Revised in 2016, my interactive ebook describes

- How to shoot and process still image “nightsapes” – images of landscapes taken at night by the light of the Moon or stars ...

and ...

- How to shoot and assemble time-lapse movies of the stars and Milky Way turning above Earthly scenes, all using DSLR cameras.

The 500-page multi-touch ebook includes ...

- **40 embedded HD videos** (no internet connection required) demonstrating time-lapse techniques.
- **60 multi-page tutorials** with step-by-step instructions of how to use software: Adobe Bridge, Adobe Camera Raw, Photoshop, Lightroom, LRTimelapse, Advanced Stacker Actions, StarStaX, PTGui, Sequence, GBTimeLapse, and more.
- **Numerous Photo 101** sections explaining the basic concepts of photography and video production (f-stops, ISOs, file types, aspect ratios, frame rates, compression, etc.).
- **Numerous Astronomy 101** sections explaining the basics of how the sky works (how the sky moves, where the Moon can be found, when the Milky Way can be seen, when and where to see auroras).
- **Reviews of gear** – I don’t just mention that specialized gear exists, I illustrate in detail how to use popular units such as the Time-Lapse+, Michron, Pluto, and TriggerTrap intervalometers, and the AllView mount, Radian2, SYRP Genie, eMotimo, Dynamic Perception, and Rhino motion control units, with comments on what’s good - and not so good - to use.

You’ll learn ...


- What are the best cameras and lenses to buy (cropped vs. full-frame, Canon vs. Nikon, manual vs. automatic lenses, zooms vs. primes).
- How to set your cameras and lenses for maximum detail and minimum noise (following the mantra of “exposing to the right” and using dark frames).

Jerry Lodriguss


CATCHING THE LIGHT

Astrophotography by Jerry Lodriguss


Home Images▾ Books▾ Tutorials▾ Observing▾ Videos▾ Stories Miscellaneous▾ What's New Search




Horsehead Nebula




Beginner's Guide
Get started in basic astrophotography of the




Processing Guide
Learn DeepSkyStacker and Photoshop for image



Advanced Guide
Take your long-exposure deep-sky images to the



Planetary Guide
Shoot high-resolution images of the sun, moon



Deepsky Guide
Learn what to shoot with this atlas of celestial

Colloque CCD de la FAAQ



F.A.A.Q.

Le site des clubs d'astronomie du Québec

[🏠](#) > Colloque CCD 2017

Colloque CCD 2017



La Fédération des Astronomes Amateurs du Québec en collaboration avec le Club d'Astronomie de Boisbriand ont le plaisir de vous inviter à la 20e Édition du Colloque CCD/DTC qui se tiendra à la Maison du citoyen, 955 boul. Grande Allée, Boisbriand P.Q. J7G 1W6 (même endroit que l'an dernier), le samedi 25 novembre 2017.

[Inscription](#)

[Les inscrits](#)

[Programme](#)

[Ressources internet](#)

[Carte](#)

[Nous joindre](#)

Les sujets touchés lors du Colloque sont liés à la prise de photographies astronomiques à l'aide de caméras numériques, que ces caméras soient d'usage général ou spécialisé aux fins d'astronomie. Cet événement est ouvert à tous et connaît, année après année, une affluence grandissante.

Colloque CCD des années passées

Présentations au colloque CCD 2016



Par Denis Bergeron

Le Colloque CCD 2016

La Fédération des Astronomes Amateurs du Québec en collaboration avec le Club d'Astronomie de Boisbriand avait le plaisir de vous inviter à la 19^e édition du Colloque CCD/DTC qui se tenait à la Maison du citoyen, 955 boul. Grande Allée, Boisbriand P.Q. J7G 1W6 (même endroit que l'an dernier), le samedi 12 novembre 2016.

Les sujets touchés lors du Colloque sont liés à la prise de photographies astronomiques à l'aide de caméras numériques, que ces caméras soient d'usage général ou spécialisé aux fins d'astronomie. Cet événement est ouvert à tous et connaît, année après année, une affluence grandissante. Cette année, nous étions autour de 95 personnes ce qui en fait notre meilleure année.

Nous nous adressons à un public cible qui inclue toutes les personnes qui s'intéressent ou pourraient s'intéresser à l'astrophotographie. Nul besoin de posséder d'instrument. Seul l'intérêt suffit. Les présentations sont informelles. Les présentations ont été enregistrés et mises sur Internet dans la section [DIDACTICIELS](#) des forums [ASTRO-QUÉBEC](#) et sur [YOUTUBE](#). Vous pourrez donc y avoir accès en tout temps.

Les conférences touchaient trois volets : L'astrophoto en utilisant les petites caméras numériques, les caméras APN (DSLR), ainsi que les CCD. Pour les néophytes, le terme "CCD" est l'abréviation anglaise de Charged Coupled Device, dont la traduction française est Dispositif à Transfert de Charge ("DTC"). Le terme CCD/DTC réfère ainsi à la composante électronique qui est au coeur de certaines caméras numériques.

Nous espérons que vous avez été emballé par les présentations et que peut-être un jour vous aussi embarquerez dans le merveilleux monde de l'astronomie et de l'astrophotographie.

L'équipe d'organisation du colloque CCD 2016

Denis Bergeron (organisateur, sélection des présentateurs, publicité, montage et diffusion des vidéos des présentations sur Internet, mise à jour du site web)

Louise Ouellette (FAAQ, préparation des pochettes, inscriptions en ligne, publicité aux membres de la FAAQ)

Michel Renaud (son, projection, pauses cafés, réservation au restaurant après le colloque)

Jean-Pierre Lavallée (accueil des participants et remises des pochettes le samedi matin)

Luc Bellavance (Conception du site web, mise à jour et mise en ligne)

Michel Gendron (préparation des conférenciers, enregistrements vidéos des présentations)

Denis St-Gelais (son et microphones)

La photo astro économique Mes expériences avec les logiciels gratuits

Pedro Borquez

Colloque ccd 2015

0:04 / 54:21



La photo ASTRO-ECONOMIQUE-Experiences avec des logiciels gratuits

743 vues

3 0 PARTAGER ...



Denis Bergeron

Ajoutée le 12 janv. 2016

S'ABONNER 390

Présentation de PEDRO BORQUEZ sur LA PHOTO ASTRO-ECONOMIQUE et ses expériences avec des logiciels gratuits (COLLOQUE CCD 2015)



Astrophotographie avec petits instruments Yves Tremblay

5 222 vues

 38  3  PARTAGER  



Denis Bergeron

Ajoutée le 10 déc. 2014

S'ABONNER 390

Astrophotographie avec de petits instruments

Présenté par Yves Tremblay au colloque CCD 2014 à Boisbriand Québec Canada samedi 15



ybouchard Canon Magic lantern

318 vues

👍 2 💬 0 ➦ PARTAGER ≡ ⋮



Denis Bergeron

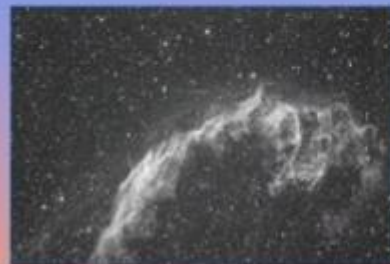
Ajoutée le 24 nov. 2013

S'ABONNER 390

Présentation au colloque CCD 2013 par Yanick Bouchard sur les performances du firmware MAGIC LANTERN pour appareil photo Canon T3i et autres.

Analyse des performances d'une caméra DSLR CANON T3i filtrée et défiltrée versus une caméra CCD SBIG ST10 XME

Par Denis Bergeron novembre 2012



0:07 / 1:04:52



Comparaison des performances DSLR Canon T3i versus CCD SBIG ST10 XME.wmv

1 502 vues

6 0 PARTAGER



Denis Bergeron

Ajoutée le 22 févr. 2013

S'ABONNER 390

Vidéo d'une présentation faites lors du colloque CCD 2012 à Boisbriand (Québec, Canada) sur une analyse des performances d'un appareil photo DSLR Canon T3i, défiltrée et non défiltrée comparativement à une caméra CCD SBIG ST10 XME sur des objets célestes identiques. Le

ACAIQ (Ateliers Conférences en Astro-Imagerie du Québec)



F.A.A.Q.

Le site des clubs d'astronomie du Québec

[🏠](#) > ACAIQ

ACAIQ

Qu'est ce que l'ACAIQ?

L'ACAIQ (Ateliers Conférences en Astro-Imagerie du Québec) est un événement qui est organisé dans le but de rassembler les passionnés d'astrophotographie du Québec. Sous forme de conférences, présentations et d'ateliers pratiques, nous traitons de tous les sujets sur l'acquisition, le traitement d'images astronomiques à l'aide de logiciels spécialisés. Que ce soit pour les débutants, intermédiaires ou avancés, c'est l'événement idéal pour apprendre, partager, échanger et socialiser.

En cette huitième édition de l'ACAIQ, l'équipe de l'organisation est fière de vous annoncer

que l'événement aura lieu à nouveau la **fin de semaine du 29, 30 avril et 1er mai 2016 à l'hôtel DAYS INN de Ste-Hélène-de Bagot.**

Si l'astrophotographie vous intéresse et que vous désirez approfondir vos connaissances et techniques, cette activité est pour vous.

Sentez-vous libre d'y participer.

Denis Bergeron (Organisateur)

Atelier en imagerie planétaire par Roch Lévesque et Roger Ménard

Roger Ménard et Roch Lévesque ont présenté des conférences lors des colloques CCD sur l'imagerie planétaire. Vous pouvez aller les visualiser dans la section [Didacticiels](#) des forums Astro-Québec ou en cliquant sur le lien suivant:

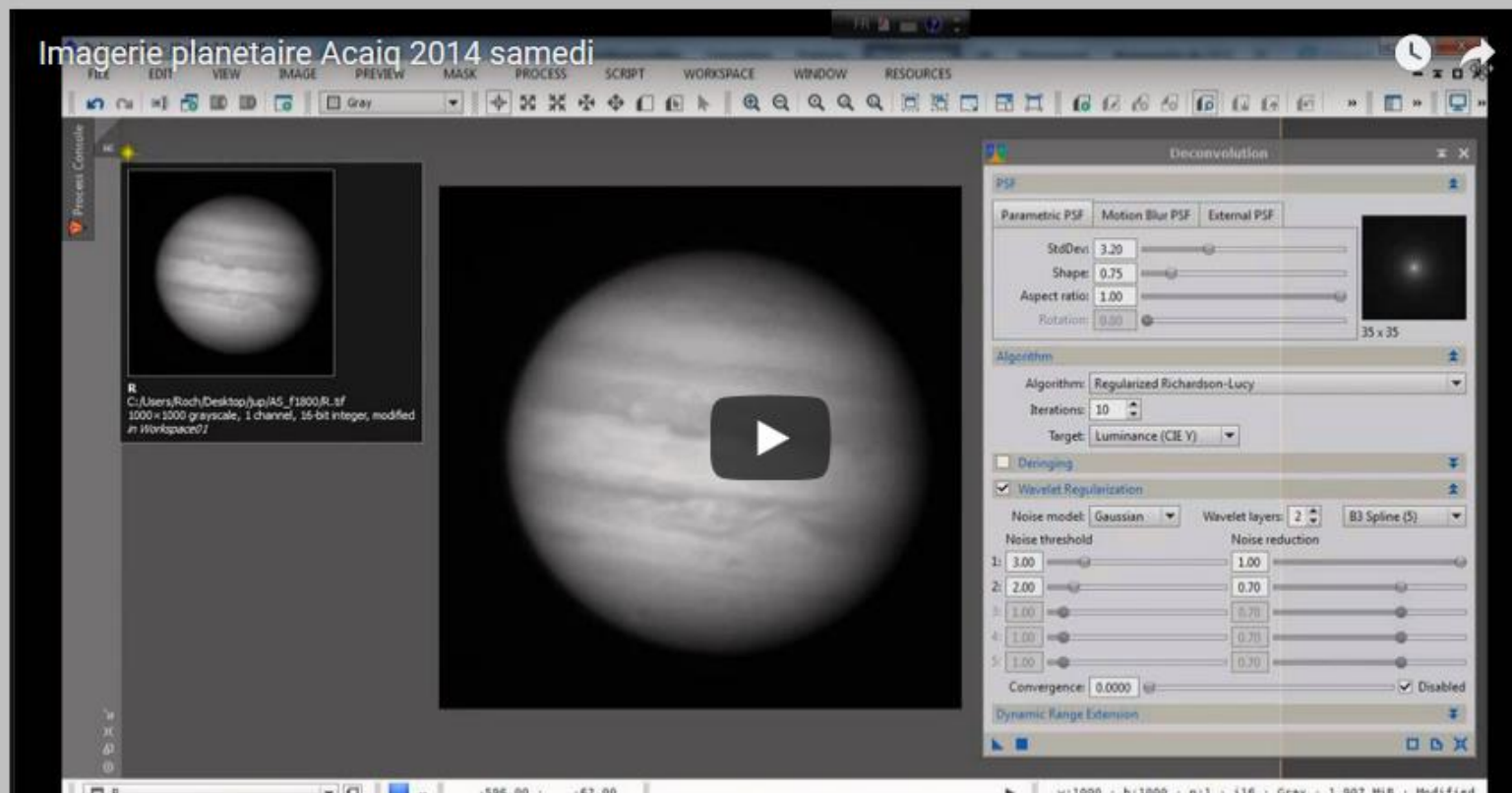
[Présentation sur l'imagerie planétaire](#) par Roger Ménard

[Analyses des performances de la camera ZWO ASI 120MM](#) par Roch Lévesque

Fichier vidéo de pratique [ici](#)

Atelier présenté le samedi

Lien Youtube: <http://youtu.be/ZX7zJpxYIIQ>



00 :00 :00 : Démonstration sur comment prendre des séquences vidéos AVI par filtres distincts Rouge (Red), vert (Green) et bleue (Blue) avec une caméra ZWO ASI 120MM et le logiciel SHARP CAP qui est fourni avec la caméra. Le télescope utilisé est un Celestron 11 muni d'une lentille de Barlow de 2X.

(Pour ceux qui aimeraient pratiquer l'atelier de Roch, utilisez le fichier vidéo AVI de Jupiter intitulé : J11sept12b.avi que vous pouvez télécharger ici)

00 :06 :00 : Utilisation du logiciel CASTRATOR pour cropper et aligner les images de la planète dans le vidéo d'origine.

00 :06 :48 : Utilisation du logiciel AUTOSTAKKERT pour sélectionner et empiler nos meilleures images de notre vidéo généré par le logiciel CASTRATOR.

00 :15 :43 : Séparation de notre image couleur généré par le logiciel AUTOSTAKKERT en trois couches (CHANNELS) R (rouge), G (vert) et B (Bleue) dans le logiciel PIXINSIGHT.

00 :17 :52 : Redimensionner chacune des images R, G et B 1000 pixels par 1000 pixels dans Photoshop CS5.

00 :20 :00 : Ajustement des contrastes de chacune des images R, G et B en utilisant l'outil NIVEAUX (LEVELS) dans Photoshop CS5.

00 :28 :34 : Application d'un premier traitement par DECONVOLUTION pour améliorer la qualité de l'image. (Logiciel Pixinsight)

00 :34 :11 : Application d'un deuxième traitement (ATROUS WAVELET TRANSFORM) pour améliorer la qualité de l'image. (Logiciel Pixinsight)

00 :43 :46 : Recombinaison des trois couches RGB améliorée (CHANNEL COMBINATION) dans le logiciel PIXINSIGHT. Image couleur RGB.

00 :47 :10 : Redimensionnement dans Photoshop CS5 de notre image couleur RGB 8000 pixels par 8000 pixels.

00 :48 :53 : Alignement des canaux RGB dans l'image avec l'outil DÉPLACEMENT (MOVE TOOL) (Photoshop CS5).

00 :53 :54 : Amélioration des détails de l'image couleur avec la fonction ATROUS WAVELET TRANSFORM du logiciel PIXINSIGHT.

01 :01 :29 : Saturation des couleurs avec la fonction COLOR SATURATION du logiciel PIXINSIGHT.

01 :03 :40 : Elimination du dégradé des couleurs sur le rebord de la planète avec l'outil BAGUETTE MAGIQUE (MAGIC WAND), SÉLECTION et AMÉLIORER LE CONTOUR de Photoshop CS5.

01 :13 :53 : Sauvegarde pour le web de notre image finale

01 :14 :46 : fin

Matériel utilisé



Matériel utilisé

The Orion StarShoot 5 MP Solar System Color Camera is built around a big, 5-megapixel (2592x1944) one-shot color imaging sensor which has super-small 2.2 x 2.2 micron pixels perfect for capturing highly magnified exposures of the Moon and planets.



Matériel utilisé

Logitech Quickcam Pro 4000 USB webcam



Sony ICX098AK HAD CCD internal transfer, pixel $5.6 \times 5.6 \mu\text{m}$
Resolution, size: 1.3 MPix, $659 \times 494 \text{ px}$,

Matériel utilisé

Barlow + webcam + laptop



Matériel utilisé

Meade Deep Sky Imager II Pro CCD camera



Sony EXview HADT CCD Sensor(ICX429ALL) 5.59 mm × 4.68 mm; 8 mm diagonal, 752 × 582 pixels (437 664 pixels) 8.3 × 8.6 μm.

Matériel utilisé

Barlow + DSI II + laptop



Matériel utilisé



Matériel utilisé





CMOS camera expert

Coupon Code : 50-OFF
2017.11.23-2017.12.31

HOME
go to home

STORE
info and buy now

EXPLORE
setting sail

GALLERY
users references

DEALERS
our dealers

SUPPORT
manual and software

FORUM
QA and share

CONTACT US
get in touch

TIMELINE
company timeline

ASI120MC-S (color)

[Home](#) > [ZWO products](#) > [Products on sale](#) > [ASI120MC-S \(color\)](#)

Products

[New Arrival](#)

[Products On Sale](#)

[Camera Kits](#)

[Cooled Camera](#)

[USB3.0 Camera](#)

[USB2.0 Camera](#)

Sale!



~~\$229.00~~

\$179.00

ASI120S is a super speed and sensitive USB 3.0 camera. Up to 60FPS under 1280X960 full resolution!

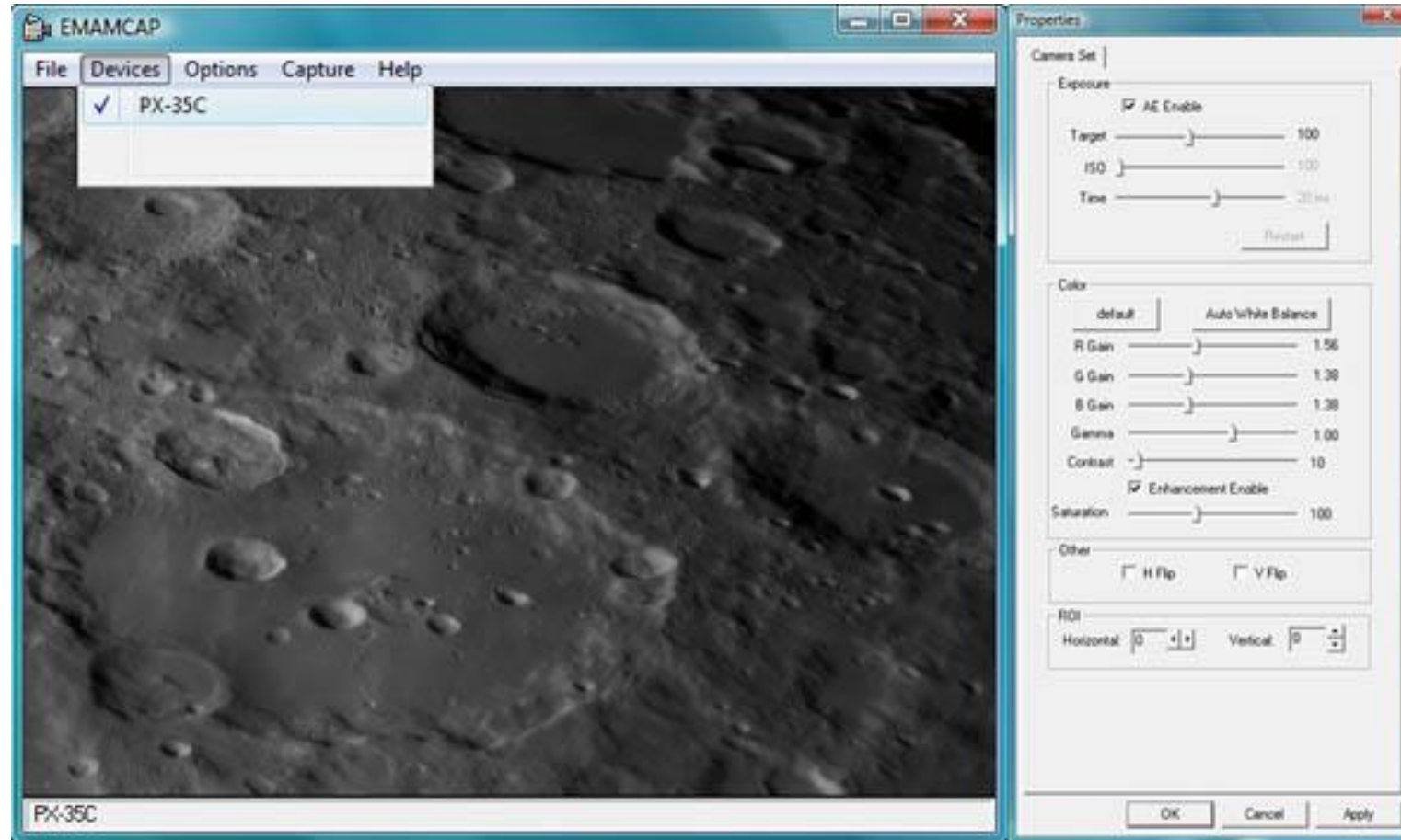
Free World Wide Shipping for cameras and accessories orders above 299 \$.

1

[Add to cart](#)

SKU: ASI120MC-S Categories: [Products on sale](#), [USB3.0 Camera](#)

Orion AmCap Captuse software



SharpCap 2.9.3086.0



Home Downloads Documentation Forums Polar Alignment Purchase SharpCap Pro

SharpCap

Navigation

- SharpCap
 - Downloads
 - Documentation
 - Features
 - Supported Cameras
 - News
 - Support and Troubleshooting
 - Gallery
 - Thanks To...
 - Support
 - SharpCap
 - Licensing
- ConeSharp
- SupaTrak ASCOM Driver
- Hacking The SupaTrak Mount
- Reviews
 - BS Astro Flip Mirror Review - Part 1
 - BS Astro Flip

About SharpCap?

SharpCap is an easy-to-use but powerful Astronomy camera capture tool. It can be used with dedicated astronomy cameras, webcams and USB frame grabbers.

A wide range of features makes SharpCap suitable for many types of astro-imaging including Planetary, Lunar, Solar, Deep Sky and EAA (Electronically Assisted Astronomy). A clear and logical UI makes the program easy for beginners to use. [Comprehensive documentation](#) will also help those who are just getting started.

Main Features

Intuitive and Easy to Use	Simple and logical application layout using standard, familiar Windows UI elements
Video and Still Capture	Capture video to AVI and SER format; capture stills to PNG and FITS
Planetary, Solar and Lunar Imaging	Support for high-speed cameras including USB3 speeds for lucky imaging

Get Help, Support, Tips and Tricks on the

[SharpCap Forums](#)



[SharpCap courses by Gary Palmer](#)



1,2 K



Propriétés

Commandes de la caméra Zoom/Suivi du visage

Paramètres de l'image

Luminosité

Contraste

Gamma

Saturation

Exposition

Auto

Temps de pose

Gain

Paramètres utilisateur

Enregistrer Restaurer

Paramètres d'origine

Restaurer

Mode Auto intégral

Modes d'image

Noir et blanc

Symétrie horizontale

Symétrie verticale

Compensation contre-jour

Equilibrage des blancs

Auto

Arrêt sur image

Incandescent

Fluorescent

Extérieur

Sans scintillement

Désactivé Activé

Fermer

Camera Control Panel

Capture Profiles

Video Format

Colour Space RGB24

FPS 15.00

Resolution 640x480

Frame Divisor

Video Capture Filter

Filter Options Show...

Image Controls

SharpCap is supported by



And Other Fine Astronomy Suppliers

FireCapture

The screenshot displays the FireCapture software interface, which is designed for astronomical imaging. The main window is titled "FireCapture v2.5.01 BETA x64" and features a navigation menu at the top with links for DOWNLOAD, DONATE, BETA, PLUGINS, FEATURES, TUTORIALS, ABOUT, and CONTACT. The interface is divided into several functional panels:

- Image Panel:** Includes settings for bit depth (16 Bit), binning (Bin 2x), and maximum resolution (Max 1280x960). It also shows the Region of Interest (ROI) set to 640x480.
- Control Panel:** Contains sliders for Gain (38), Exposure (Exp. (ms) at 71.86), and Gamma (50). There are also buttons for AutoExposure and a "More" menu.
- Capture Panel:** Shows the current capture sequence named "Jup_TIME" with a play button and a "Shutter" indicator showing 71.86 ms. It also includes options for "No limit" or "AVI" and a "More" menu.
- Status Panel:** Displays real-time performance metrics: FPS (max/current) at 13.92/12.65, Captured/Saved frames at 53/53, RAM usage at 843 MB, and HDD usage at 101 GB.
- Histogram Panel:** Shows a color histogram with peaks for Red (R), Green (G), and Blue (B) channels.
- Options and Settings Panels:** Provide additional configuration options for the capture process.
- Temperature Panel:** Displays a graph of temperature over time, currently showing 29.0 °C.
- External Windows:** Several smaller windows are open, including "ZWO ASI120MC (T=29.0 °C) USB2.0" showing camera details, "FireCapture Autoun" for automated runs, "FireCapture Script Interface" for running scripts, and "FireCapture TimeLapse" showing a progress bar for 11:59 frames captured.

Overlaid on the center of the interface is the text: **HIGHLY ADVANCED USER INTERFACE**

FireCapture

POINT GREY
Innovation in Imaging



QHYCCD

ZWO



THE IMAGING SOURCE
ASTRONOMY CAMERAS



WIDE RANGE OF SUPPORTED CAMERAS



CELESTRON



IDS

/// ALLIED
Vision Technologies



BASLER

FireCapture – Caméras supportées

	 FC v2.6beta (x86) DOWNLOAD 	 FC v2.6beta (x64) DOWNLOAD 	 FC v2.6beta (x64) DOWNLOAD 	 FC v2.6beta (x64) DOWNLOAD 
 Allied				
 Altair				
 ASCOM				
 ASI				
 Basler				
 FLIR/PGR				
 Foculus				
 Genicam				
 IDS				
 NexImage				
 QHY				
 Skyris				
 TIS				

ALIGNEMENT – EMPILEMENT – TRAITEMENT

- On prend beaucoup d'images pour améliorer le rapport signal sur le bruit.
- Le processus comprend trois grandes étapes
 - Alignement
 - Empilement
 - Traitement

Astrophotography

by Emil Kraaikamp

home

equipment

links

contact

My Software

- **AutoStakkert!**
(external link!)
- **Castrator**

My Images

- **Mars**
- **Jupiter**
- **Deepsky Objects**
- **ISS and spacecraft**
- **Saturn**
- **Venus**
- **The Moon**

Castrator will very likely no longer be updated

Castrator, a tool for cropping planetary videos to uncompressed new videos, is no longer officially supported - as I'm too busy with AutoStakkert! - but the software can still be downloaded of course. If you are looking for a much more modern tool to pre-process planetary recordings - with way more possibilities - please also have a look at the [Planetary Imaging PreProcessor software \(PIPP\)](#) (external link).

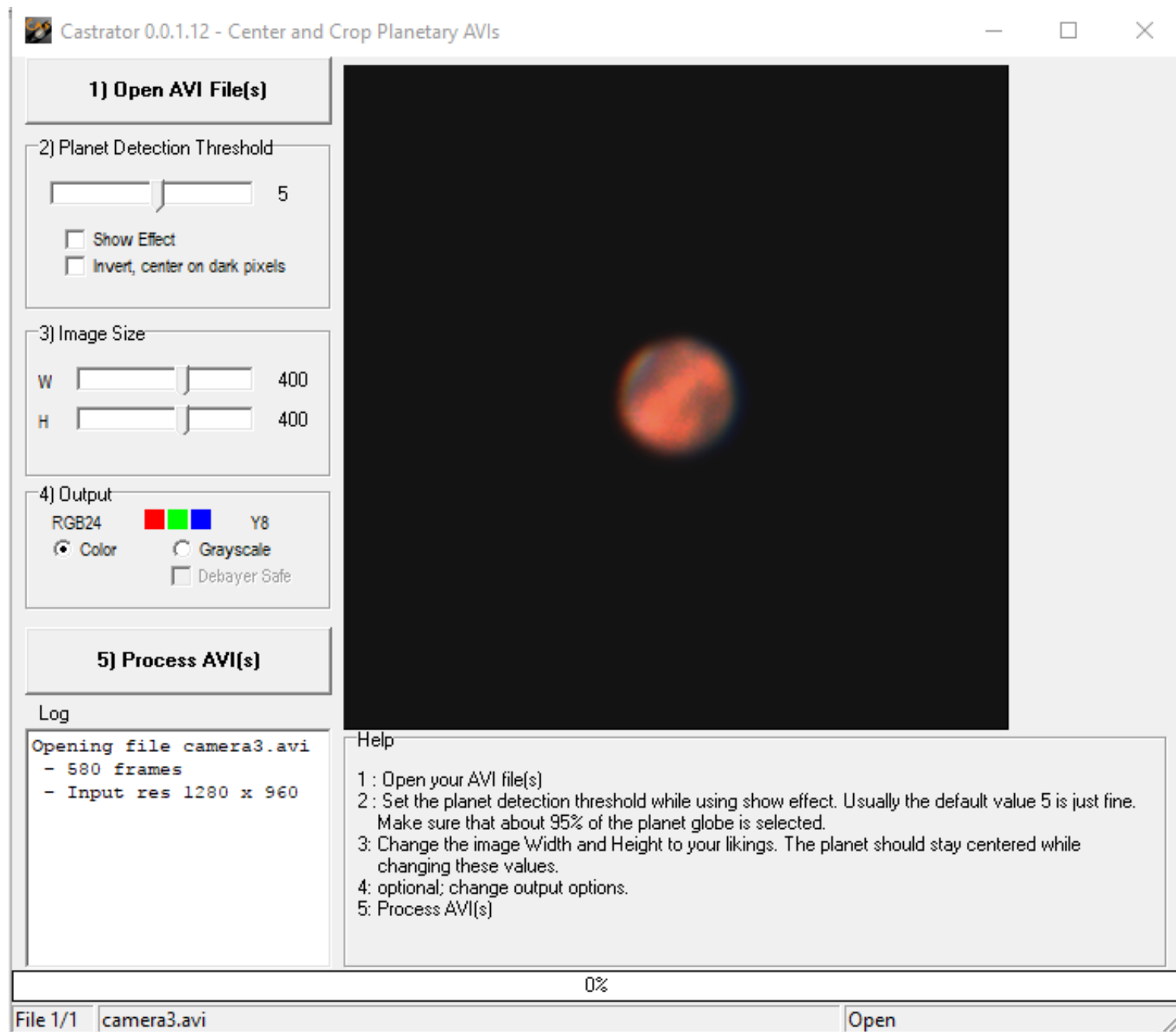
Castrator

- Crop and center planetary avi files (color and grayscale)
- Save disk space
- Facilitate fast processing
- Easy and fast batch processing
- Can handle both color and grayscale Y8 input and output
- Lossless output in Y8 or DIB avi

Castrator

- Crop and center planetary avi files (color and grayscale)
- Save disk space
- Facilitate fast processing
- Easy and fast batch processing
- Can handle both color and grayscale Y8 input and output
- Lossless output in Y8 or DIB avi

Castrator



Éclipse lunaire du 27 octobre 2015



IMG_4870.JPG



IMG_4871.JPG



IMG_4872.JPG



IMG_4873.JPG



IMG_4874.JPG



IMG_4875.JPG



IMG_4876.JPG



IMG_4877.JPG



IMG_4878.JPG



IMG_4879.JPG



IMG_4880.JPG



IMG_4881.JPG



VirtualDub

virtualdub.org

Proof that I had too much free time in college

Current version

v1.10.4 (stable)

Navigation

[Main page](#)
[Archived news](#)
[Downloads](#)
[Documentation](#)
[Capture](#)
[Compiling](#)
[Processing](#)
[Crashes](#)
[Features](#)
[Filters](#)
[Plugin SDK](#)
[Knowledge base](#)
[Contact info](#)
[Forum](#)

Other projects
[Altirra](#)

What is VirtualDub?

VirtualDub is a video capture/processing utility for 32-bit and 64-bit Windows platforms (98/ME/NT4/2000/XP/Vista/7), licensed under the [GNU General Public License \(GPL\)](#). It lacks the editing power of a general-purpose editor such as Adobe Premiere, but is streamlined for fast linear operations over video. It has batch-processing capabilities for processing large numbers of files and can be extended with [third-party video filters](#). VirtualDub is mainly geared toward processing AVI files, although it can read (not write) MPEG-1 and also handle sets of BMP images.

I basically [started VirtualDub in college](#) to do some quick capture-and-encoding that I wanted done; from there it's basically grown into a more general utility that can trim and clean up video before exporting to tape or processing with another program. I released it on the web and others found it useful, so I've been tinkering around with its code ever since. If you have the time, please [download](#) and enjoy.

Bug in XInput/DirectInput detection sample

MSDN has code to detect whether a controller device enumerated by the DirectInput API is also an XInput device, so that programs can avoid reporting the same controller twice when both APIs are supported:

<http://msdn.microsoft.com/en-us/library/windows/desktop/ee417014%28v=vs.85%29.aspx>

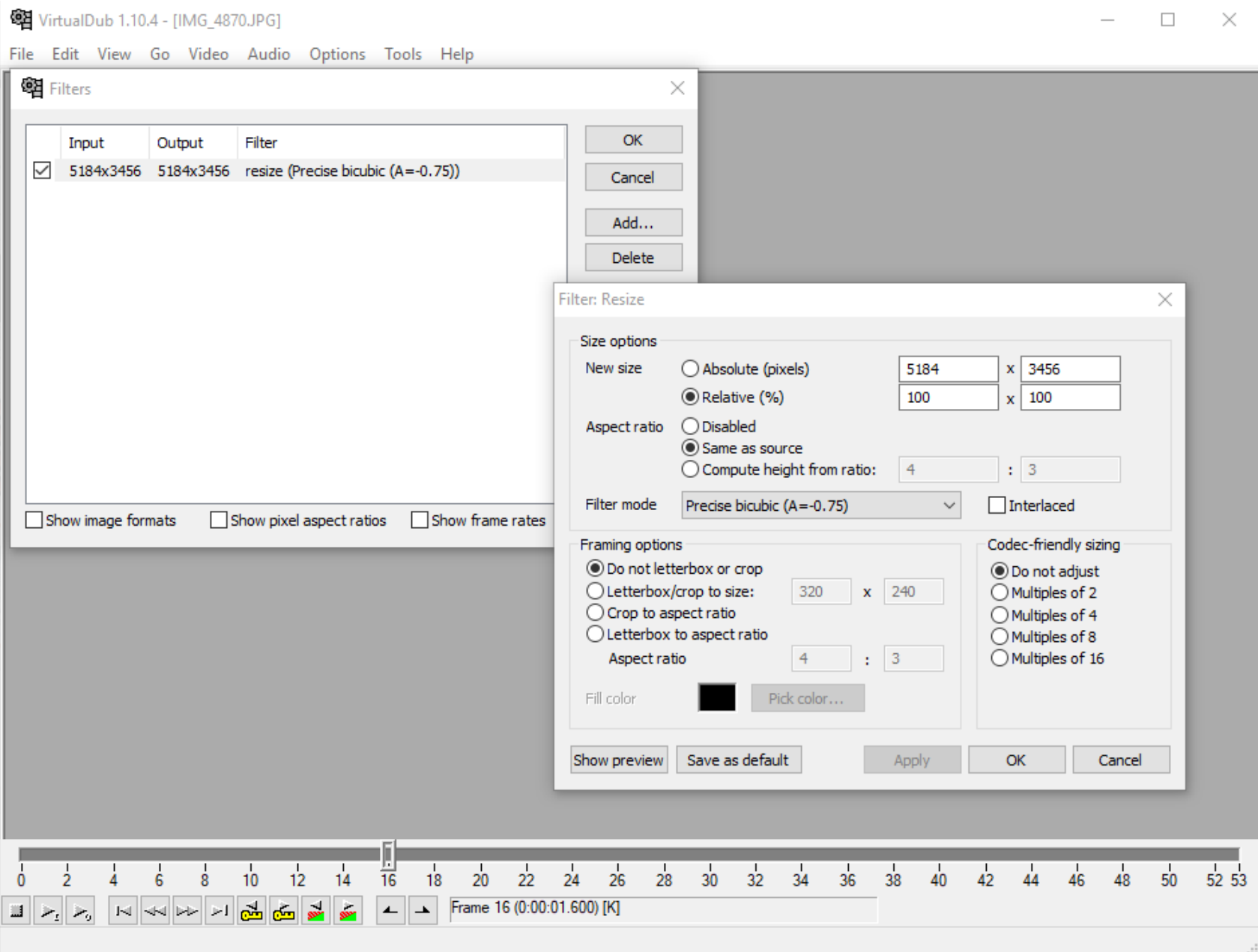
Search

Calendar

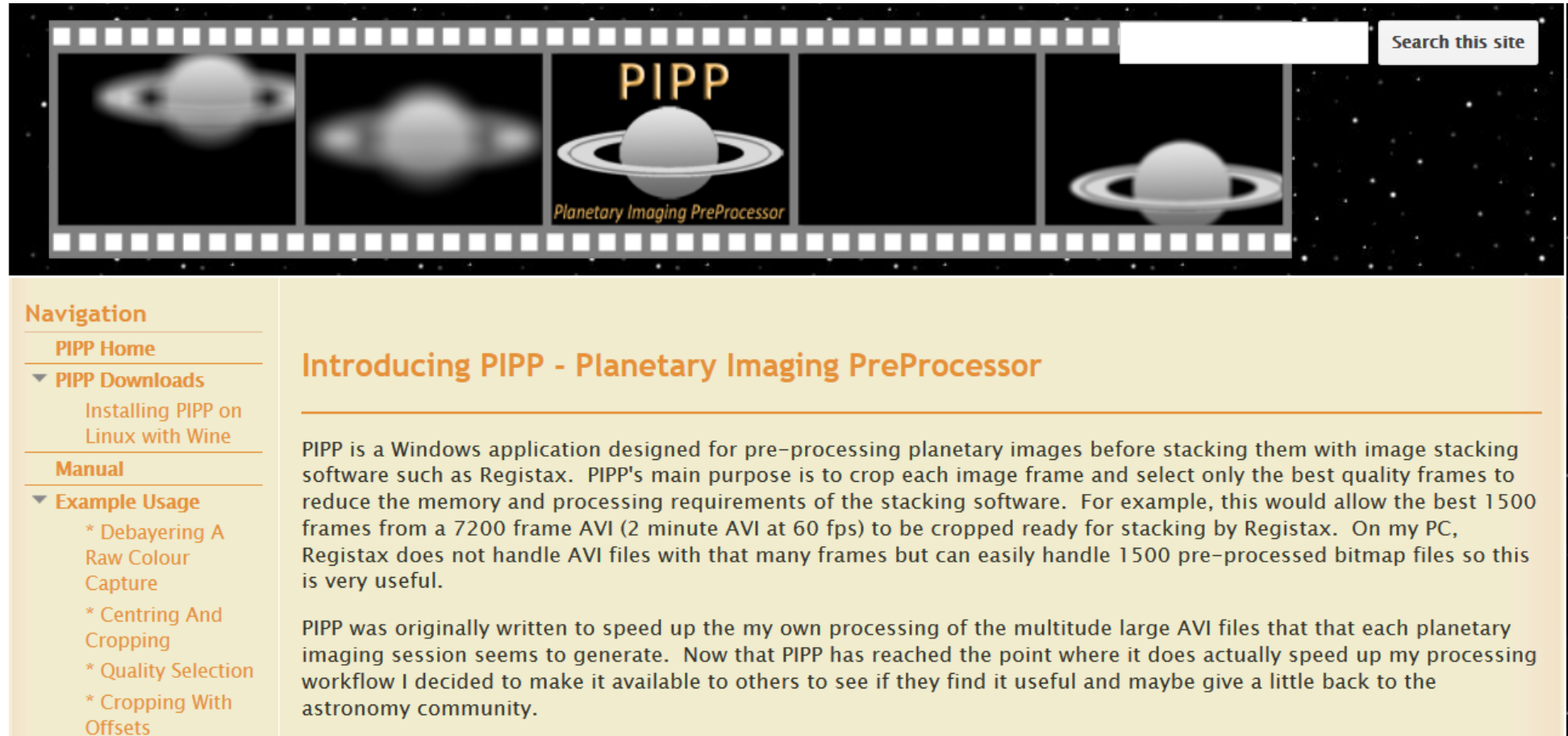
October 2014						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Archives

[01 Dec - 31 Dec 2013](#)
[01 Oct - 31 Oct 2013](#)
[01 Aug - 31 Aug 2013](#)
[01 May - 31 May 2013](#)
[01 Mar - 31 Mar 2013](#)
[01 Feb - 29 Feb 2013](#)
[01 Dec - 31 Dec 2012](#)
[01 Nov - 30 Nov 2012](#)
[01 Oct - 31 Oct 2012](#)



PIPP – Planetary Imaging PreProcessor



The image shows a screenshot of the PIPP website. The header features a filmstrip graphic with four frames: a blurry Saturn, a sharper Saturn, the PIPP logo (a Saturn with the text 'PIPP' and 'Planetary Imaging PreProcessor' below it), and another blurry Saturn. To the right of the filmstrip is a search bar with the text 'Search this site'. Below the header is a navigation menu on the left and a main content area on the right.

Navigation

- [PIPP Home](#)
- ▼ [PIPP Downloads](#)
 - [Installing PIPP on Linux with Wine](#)
- Manual**
- ▼ [Example Usage](#)
 - * [Debayering A Raw Colour Capture](#)
 - * [Centring And Cropping](#)
 - * [Quality Selection](#)
 - * [Cropping With Offsets](#)

Introducing PIPP - Planetary Imaging PreProcessor

PIPP is a Windows application designed for pre-processing planetary images before stacking them with image stacking software such as Registax. PIPP's main purpose is to crop each image frame and select only the best quality frames to reduce the memory and processing requirements of the stacking software. For example, this would allow the best 1500 frames from a 7200 frame AVI (2 minute AVI at 60 fps) to be cropped ready for stacking by Registax. On my PC, Registax does not handle AVI files with that many frames but can easily handle 1500 pre-processed bitmap files so this is very useful.

PIPP was originally written to speed up the my own processing of the multitude large AVI files that that each planetary imaging session seems to generate. Now that PIPP has reached the point where it does actually speed up my processing workflow I decided to make it available to others to see if they find it useful and maybe give a little back to the astronomy community.

PIPP

PIPP's functions:

- ❑ Load a sequence of images from supported video files, SER video files or TIFF/BMP/FITS/JPEG/RAW camera image files.
- ❑ Calibrate frames with dark, flat and dark flat calibration frames.
- ❑ Debayer raw frames from colour cameras to produce colour frames.
- ❑ Check each frame contains a planet that is completely on the image and discard any frames that do not.
- ❑ Check for and discard overexposed frames.
- ❑ Centre the planet in the frames.
- ❑ Offset the centred planet.
- ❑ Crop each frame around the centred planet.
- ❑ Apply a fixed gain to each frame.
- ❑ Apply a fixed gamma correct to each frame.
- ❑ Apply a median noise filter to each frame.
- ❑ Stretch histogram for each frame (equalising R, G and B channels for colour images).
- ❑ Estimate the quality of each frame and reorder the processed frames in order of quality.
- ❑ Keep only the number of best quality frames specified by the user.
- ❑ Split colour frames into R, G and B frames.
- ❑ Save processed frames as a sequence of TIFF/BMP/FITS image files, as a single AVI/SER video file ready for stacking or archiving or as an animated GIF for sharing online.

PIPP

The screenshot displays the PIPP (Planetary Image Processing Program) software interface. The main window, titled "PIPP - Output Frame", shows a large, circular, reddish-orange moon centered in a black frame. The frame is overlaid with a grid and axes, with the X-axis ranging from 0 to 5200 and the Y-axis from 0 to 3200. To the left of the main window is a control panel with the following sections:

- Frame Information:** Frame Number (1 of 53), Frame Size (5184 x 3456), Max Pixel Value (100% 99% 100%), and Zoom (12.5%).
- Control:** Buttons for "Update Image" and "Save Image".
- File Options:** Source Files, Input Gain And Gam (Gain: 1.0, Gam: 1.0), Noise Filter (Enable Median Noise Filter:), and Monochrome Conversion (Convert Colour To Monochrome: , Use RG & B Channels).
- Histogram Equalisation:** Stretch Histogram White Point To: 75%, Set Histogram Black Point To 0%: , Equalise R, G and B Channels Individually: .
- Overexposed Detection:** Reject Frames With Overexposed Pixels: , Number Of Maximum Value Pixels Before Rejection: 20.
- Flip And Rotate:** Flip Horizontally: , Flip Vertically: , No Rotation: .

To the right of the main window is a settings panel with the following sections:

- Object Detection Threshold:** Auto Object Detection Threshold, Object Detection Threshold (1 to 255): 40, Test Detect Threshold button.
- Centre Object In Each Frame:** Centre Object In Each Frame, Edge In Shadow (Lunar Images Only): .
- Cropping:** Enable Cropping, Crop Width (X): 448, X Offset: 0, Crop Height (Y): 448, Y Offset: 0.
- Frame Resize (Reduce):** Resize Frames, Keep Original Aspect Ratio, Width: 150, Height: 150.

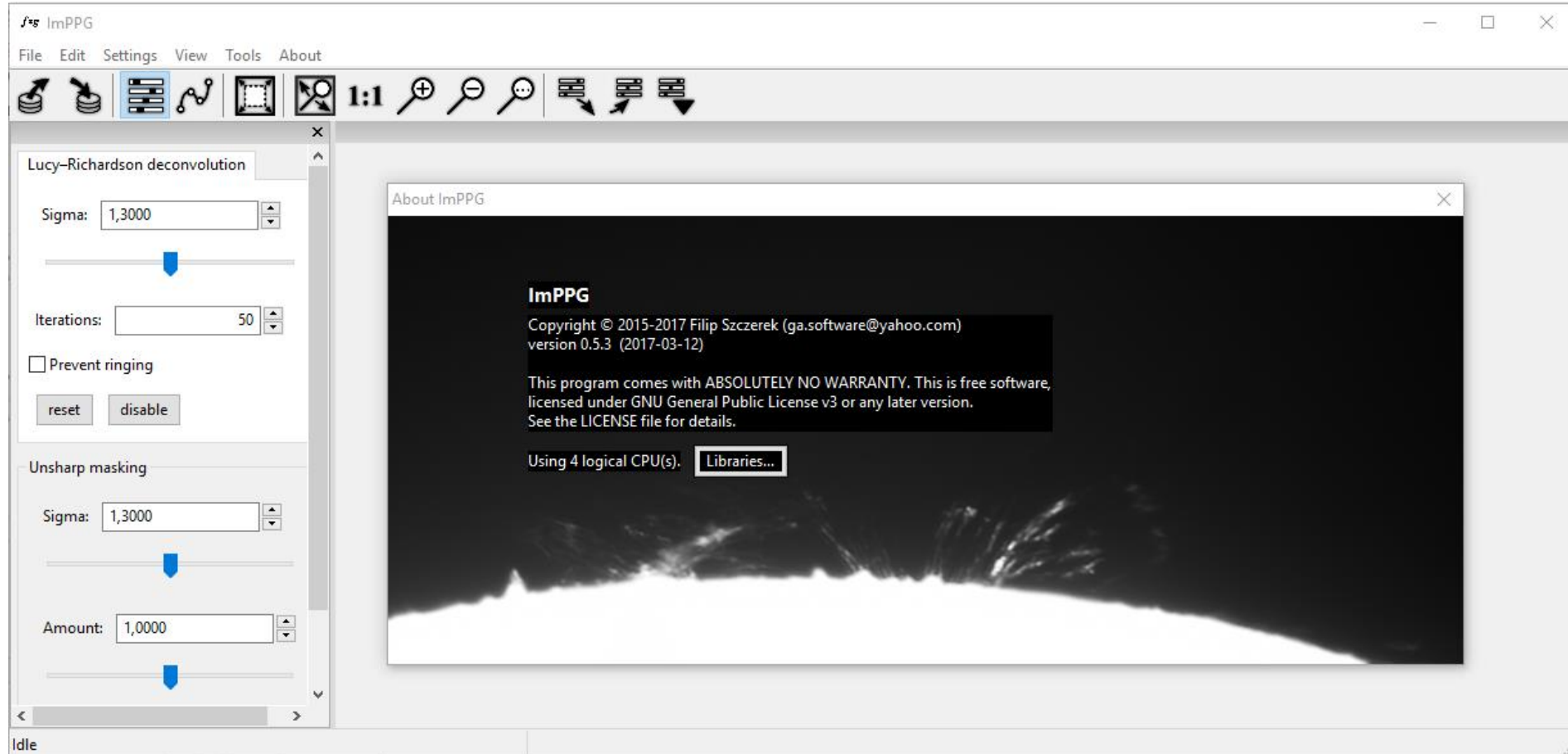
ImPPG

ImPPG (Image Post-Processor) Copyright © 2015-2017 Filip Szczerek.
last update: 2017-07-11, version 0.5.3

ImPPG performs Lucy-Richardson deconvolution, unsharp masking, brightness normalization and tone curve adjustment. It can also apply previously specified processing settings to multiple images. All operations are performed using 32-bit floating-point arithmetic.

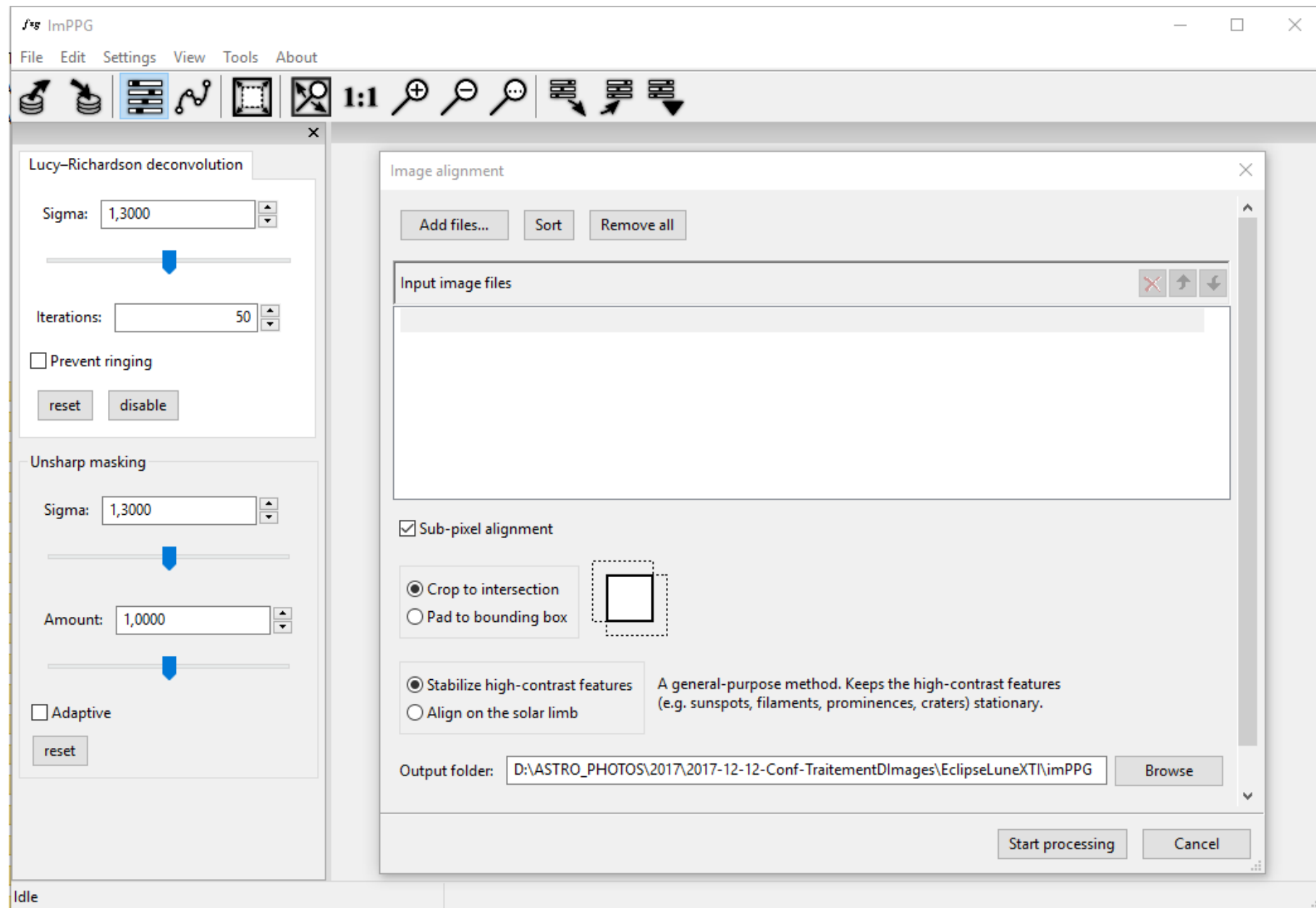
ImPPG is free and open-source, licensed under GNU GPL v3 (or later).

ImPPG

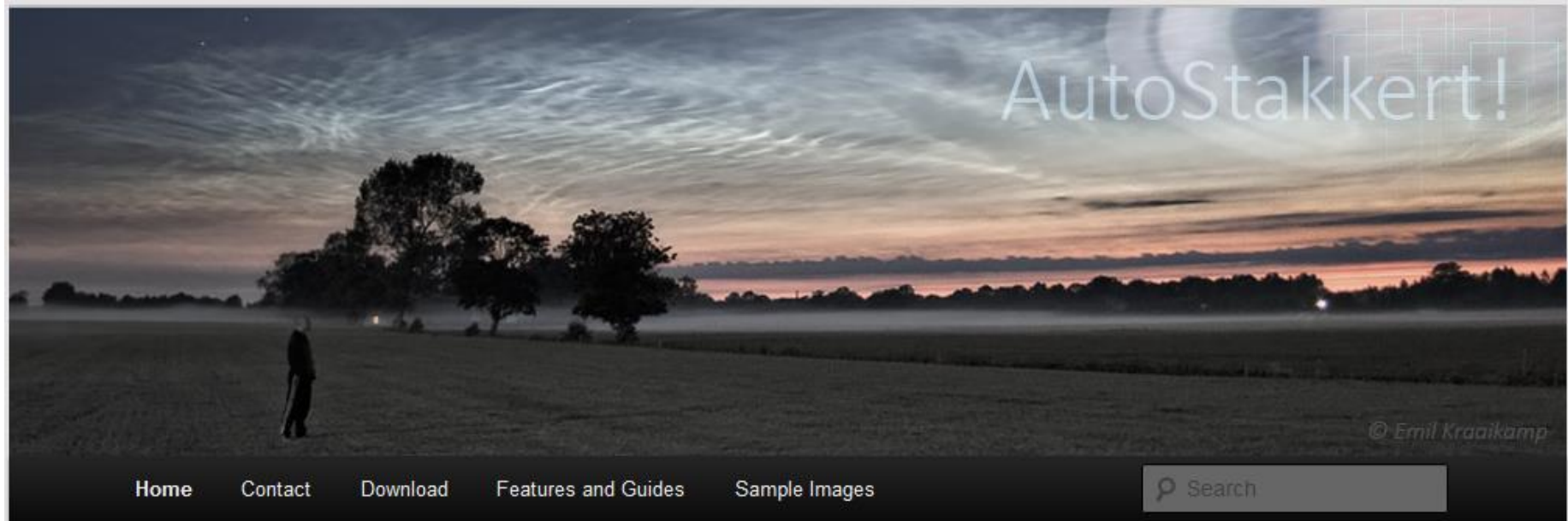


ImPPG

ImPPG can also align an image sequence, with possibly large and chaotic translations between images (aligned output images preserve number of channels and bit depth). This can be useful, for example, when preparing a solar time-lapse animation, where subsequent frames are offset due to inaccurate tracking of the telescope mount. Other possible applications are smoothing out of terrestrial landscape time-lapses or preparing raw frames (with serious image jitter) for stacking.



AutoStakkert!



Jupiter in 2016

Posted on [March 19, 2016](#)

A couple of nights ago I was lucky enough to have some decent seeing conditions to image Jupiter. I almost missed it, it was rather windy – and freezing cold, weird for winter – and the seeing predictions weren't that good either, but because I saw other astrophotographers producing nice images, I decided to go outside anyway. I was happy I did.

6

SUPPORT

- [AutoStakkert! Yahoo Group](#)
- [Contact](#)

RECENT POSTS

- [Jupiter in 2016](#)
- [Mars](#)
- [Jupiter](#)
- [The Orion Nebula 1/2](#)
- [Beta version](#)

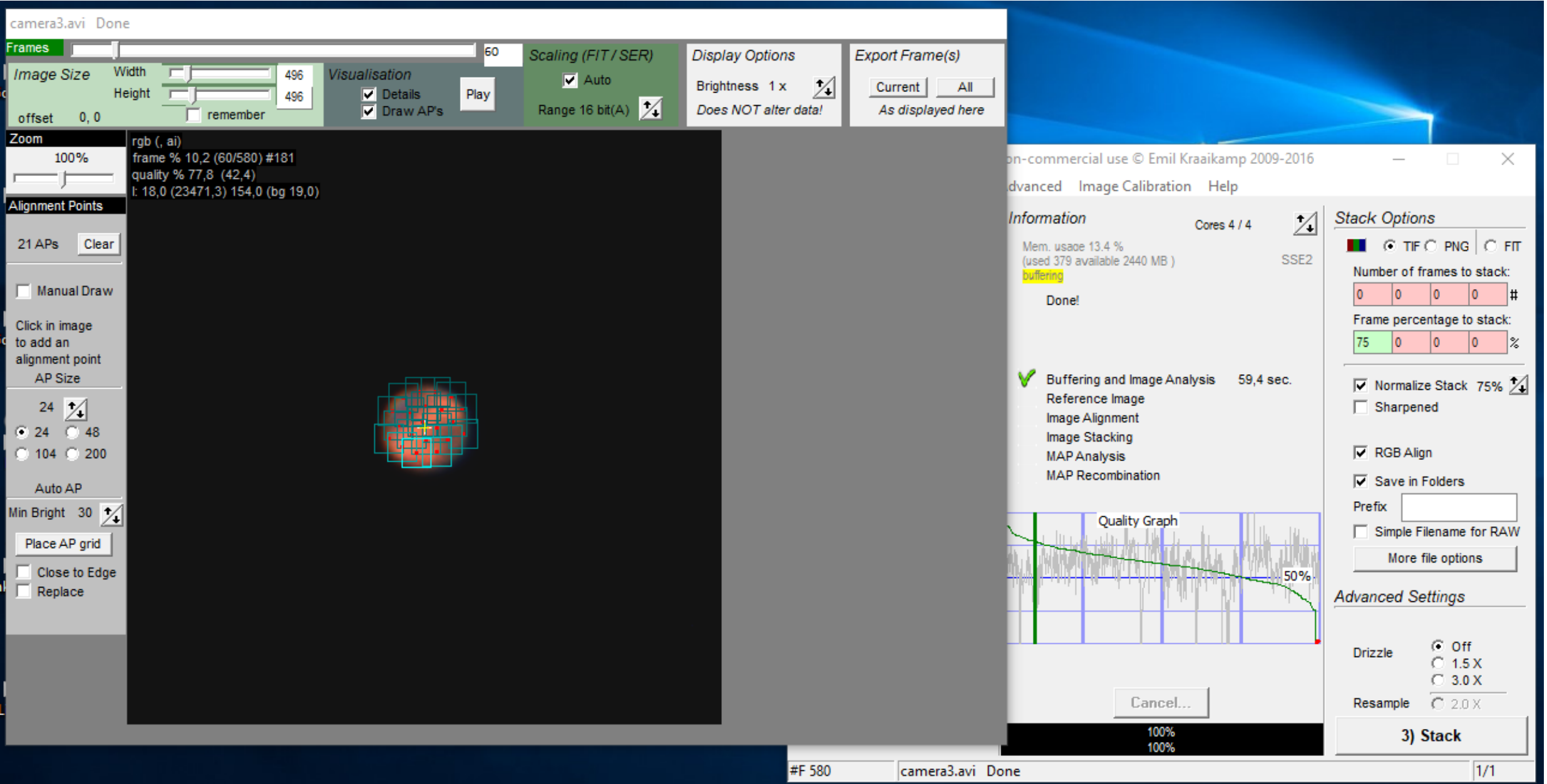
AutoStakkert!

Features

AutoStakkert! is all about alignment and stacking of image sequences, minimizing the influence of atmospheric distortions (seeing). Its goal is to create high quality images of the Planets, the Sun, and the Moon, without too much hassle.

A small and incomplete list of the features:

- Support for TIFF, FIT, BMP, AVI (uncompressed) and SER files (thanks to Heiko Wilkens). MOV files and other compressed files are also supported when Ffmpeg executable is available to AS!. In principle there are no file size limitations.
- Monochrome and color recordings (both raw bayer, and RGB).
- Very fast processing due to multicore support and advanced image buffering techniques.
- Multiple Alignment Points (MAP) results in accurate alignment especially for wider field images (Sun/Moon), but even planetary targets such as Jupiter benefit significantly from MAP.
- Frame viewer to quickly scan through all the frames (sorted by quality)
- Sophisticated MAP analysis and recombination to ensure sharp stacking results. Yes, I like to throw in some fancy words, but it actually works...
- Automated frame rejection techniques to remove poor quality and incomplete frames.
- Batch processing.
- And much much more...!



camera3.avi Done

Frames

Image Size Width Height
offset 0, 0 remember

Visualisation Details Draw AP's

Scaling (FIT/SER) Auto
Range 16 bit(A)

Display Options Brightness 1 x
Does NOT alter data!

Export Frame(s)
As displayed here

Zoom 100%
rgb (, ai)
frame % 10,2 (60/580) #181
quality % 77,8 (42,4)
t: 18,0 (23471,3) 154,0 (bg 19,0)

Alignment Points 21 APs

Manual Draw

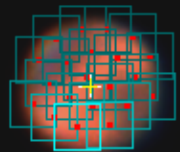
Click in image to add an alignment point
AP Size

24 48 104 200

Auto AP

Min Bright 30

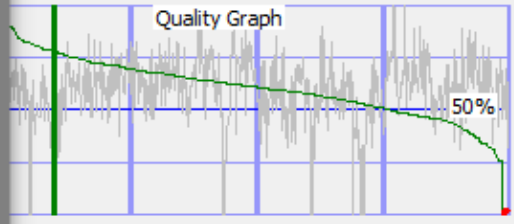
Close to Edge Replace



on-commercial use © Emil Kraaikamp 2009-2016
Advanced Image Calibration Help

Information Cores 4 / 4
Mem. usage 13.4 %
(used 379 available 2440 MB)
buffering
Done!

Buffering and Image Analysis 59,4 sec.
Reference Image
Image Alignment
Image Stacking
MAP Analysis
MAP Recombination



Stack Options
 TIF PNG FIT
Number of frames to stack:
 #
Frame percentage to stack:
 %

Normalize Stack 75%
 Sharpened

RGB Align
 Save in Folders

Prefix
 Simple Filename for RAW

Advanced Settings
Drizzle Off 1.5 X 3.0 X
Resample 2.0 X

moon_section.avi Done

Frames 1

Image Size Width 1392 Height 840

offset -59, -62

remember

Visualisation

Details

Draw AP's

Play

Scaling (FIT / SER)

Auto

Range 16 bit(A)

Display Options

Brightness 1 x

Does NOT alter data!

Export Frame(s)

Current All

As displayed here

AutoStakker! 2.6.8 - free for non-commercial use © Emil Kraaikamp 2009-2016

File Memory Usage Color Advanced Image Calibration Help

1) Open

Limit Frames

Image Stabilization

Surface Planet (COG)

Improved Tracking

Expand Cropped

Quality Estimator

Edge Gradient

Noise Robust 4

Normal range

Local (AP)

Global (Frame)

2) Analyse

Reference Frame

Last Stack is Reference

Auto size (quality based)

Cancel...

100% 100%

Information

Cores 4 / 4

Mem. usage 49.2 %
(used 1402 available 1445 MB)

buffering

Done!

Surface Image Stabilization 32,6 sec.

Buffering and Image Analysis 5,1 sec.

Reference Image 3,1 sec.

Image Alignment 7,9 sec.

Image Stacking 52,4 sec.

MAP Analysis 4,0 sec.

MAP Recombination 4,7 sec.

Zoom

60%

Alignment Points

505 APs Clear

Manual Draw

Click in image to add an alignment point

AP Size

48

24 48

104 200

Auto AP

Min Bright 30

Place AP grid

Replace

rgb (, ai)

frame % 0,0 (1/420) #418

quality % 100,0 (167,4)

l: 0,0 (40214,0) 255,0 (bg 0,0)

PIPP (Processing)

File Options Processing Help

Source Files Input Options Processing Options Quality Options Animation Options Output Options Do Processing

Control

Processing... Cancel Processing

Open Output Folder

Open Output Folder When Complete

Status

RUNNING

Processing

File: camera3.avi

Processing 580 frames

Sorting 0 frames by quality

Output

PIPP x64 (v2.5.9)

Processing: (Batch mode)

Input file:
D:\ASTRO_PHOTOS\2017\2017-12-12-Conf-TraitementDImages\Mars\camera3.avi

Estimating input frames:
Total input frames: 580

Processing 580 frames:
Using 250 RAM buffers for quality selection

PIPP - Output Frame

Frame Number
1 of 580

Frame Size
400 x 400

Max Pixel Value
95% 44% 33%

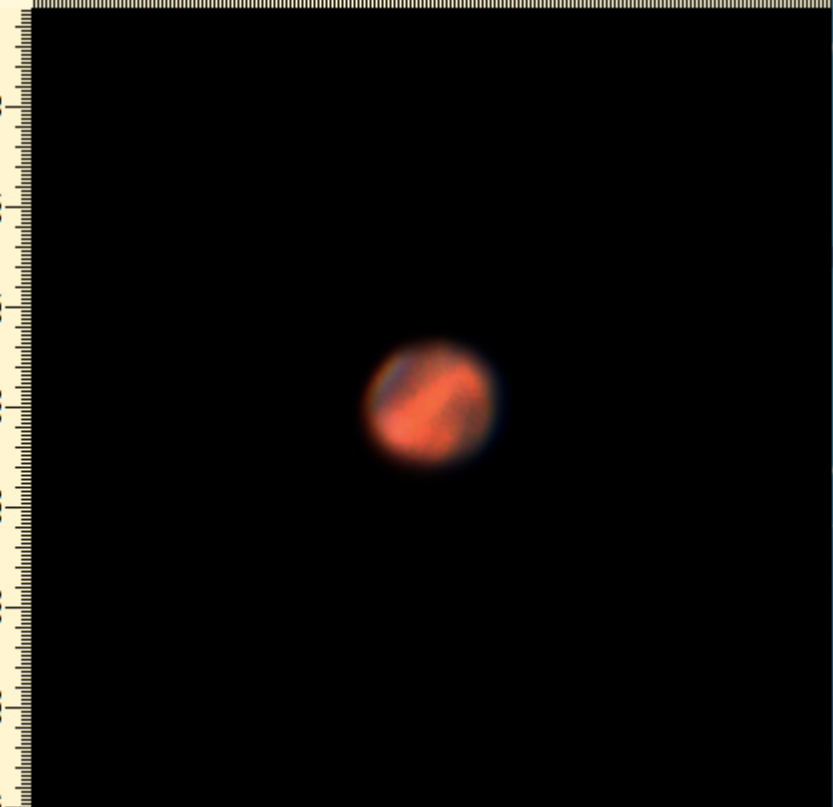
R G B

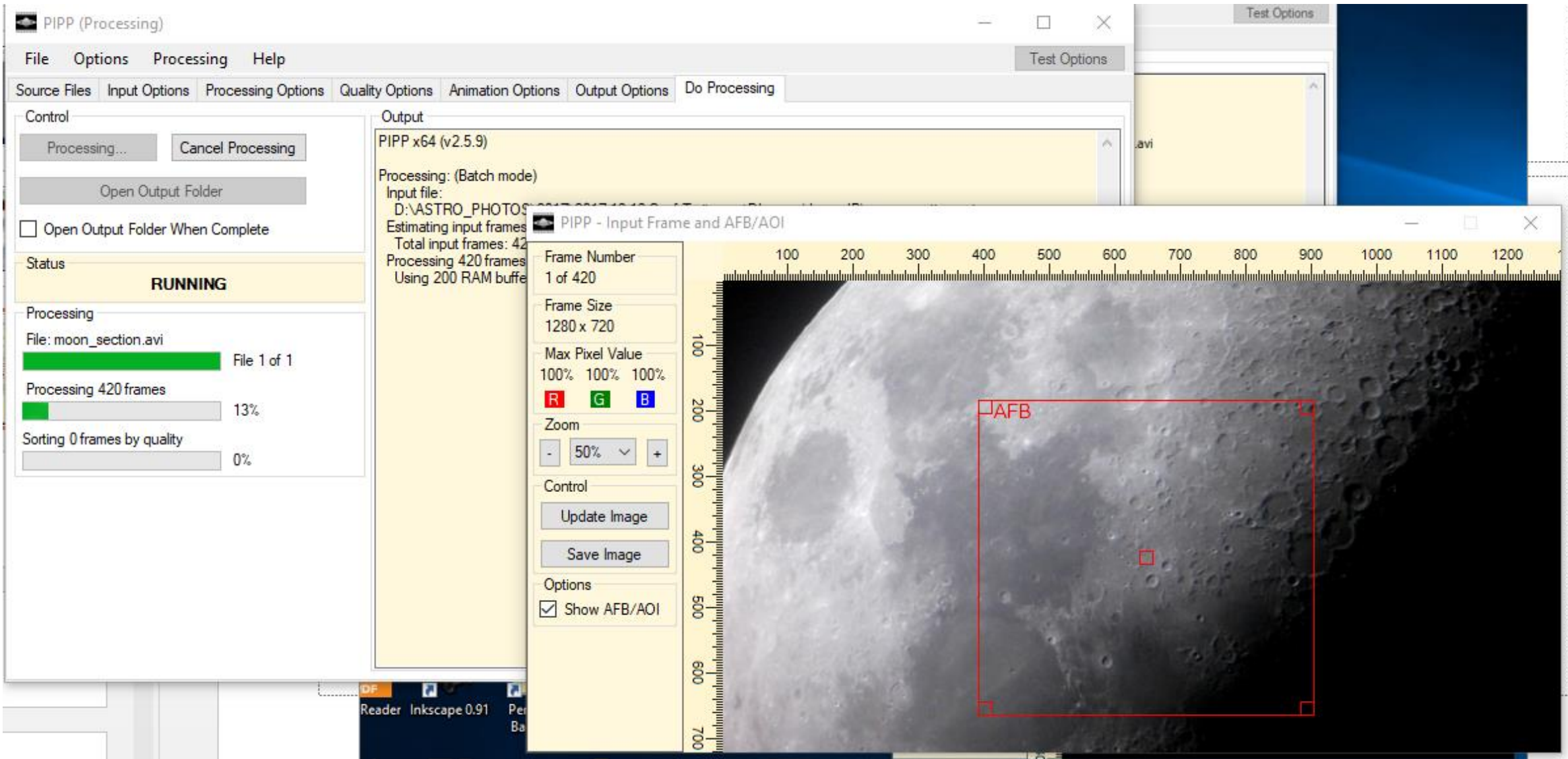
Zoom
- 100% +

Control

Update Image

Save Image

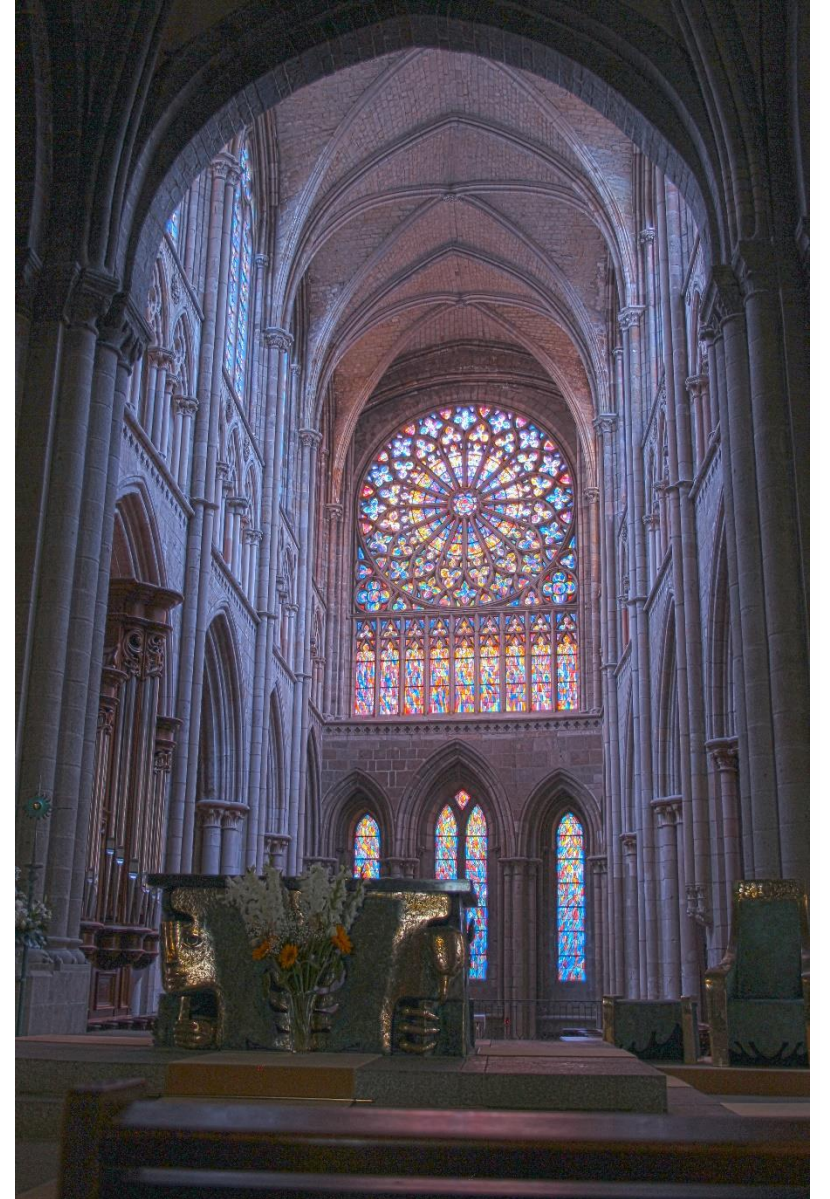
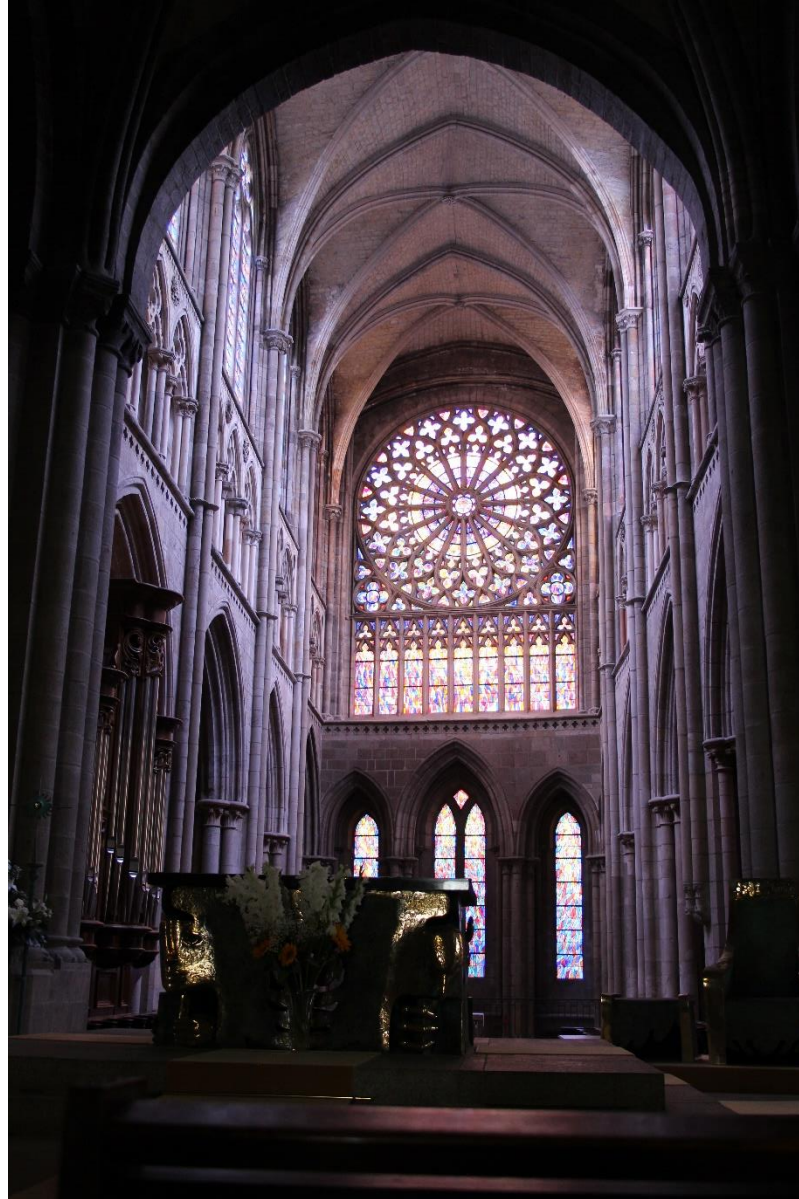
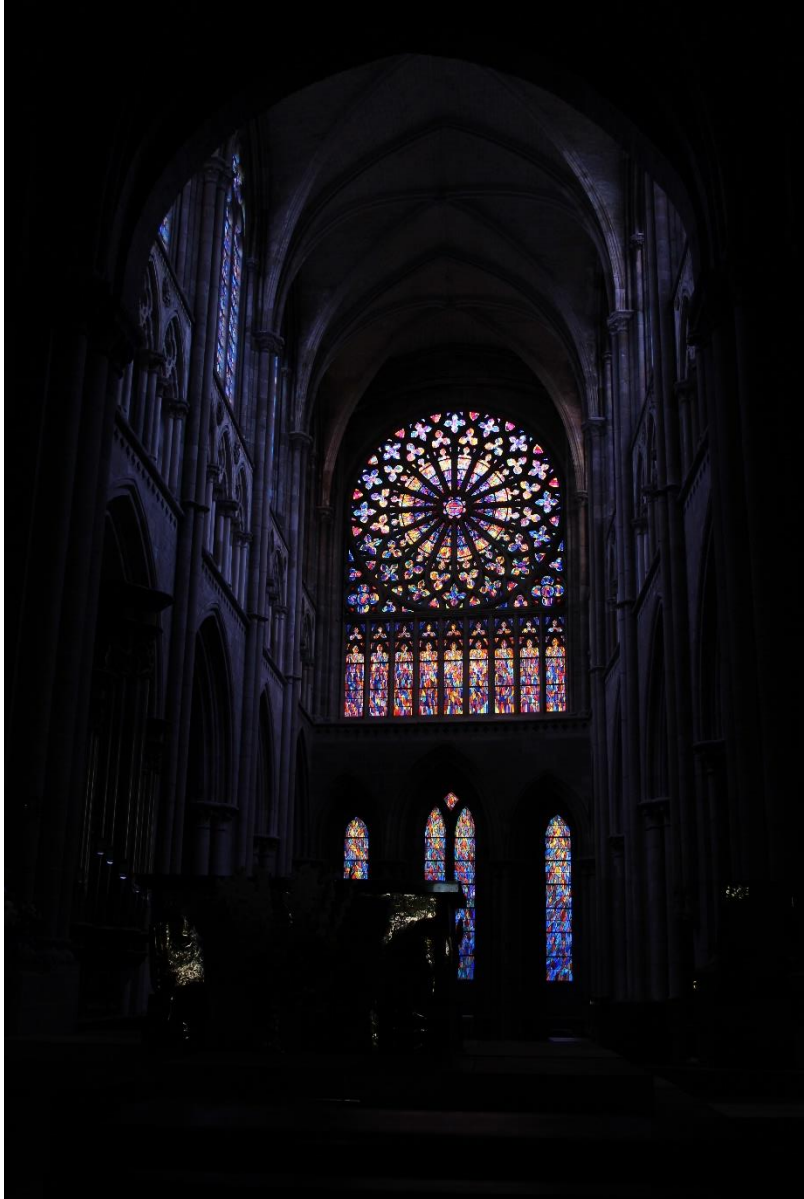




HDR

- HDR (High dynamic range)
- **L'imagerie à grande gamme dynamique (ou imagerie large-gamme)** (*high-dynamic-range imaging* ou *HDRI*) regroupe un ensemble de techniques numériques permettant d'obtenir une grande plage dynamique dans une image. Son intérêt est de pouvoir représenter ou de mémoriser de nombreux niveaux d'intensité lumineuse dans une image. Cette technique s'effectue en permettant d'attribuer plus de valeurs à un même pixel. D'abord développée pour les images générées par ordinateur, la technique s'est ensuite adaptée à la photographie numérique.

HDR



HDR – Éclipse lunaire



IMG_4807.JPG



IMG_4808.JPG



IMG_4809.JPG



IMG_4810.JPG



IMG_4811.JPG



IMG_4812.JPG



IMG_4813.JPG



IMG_4814.JPG



IMG_4815.JPG

HDR

Éclipse lunaire

Veteran eclipse watchers will tell you that if you look really hard right at the beginning and just before the end of totality, you may detect a light blue or turquoise band on the Moon's face. This happens because the Earth's Ozone Layer scatters red light and lets through some of the blue light that gets refracted to the Moon



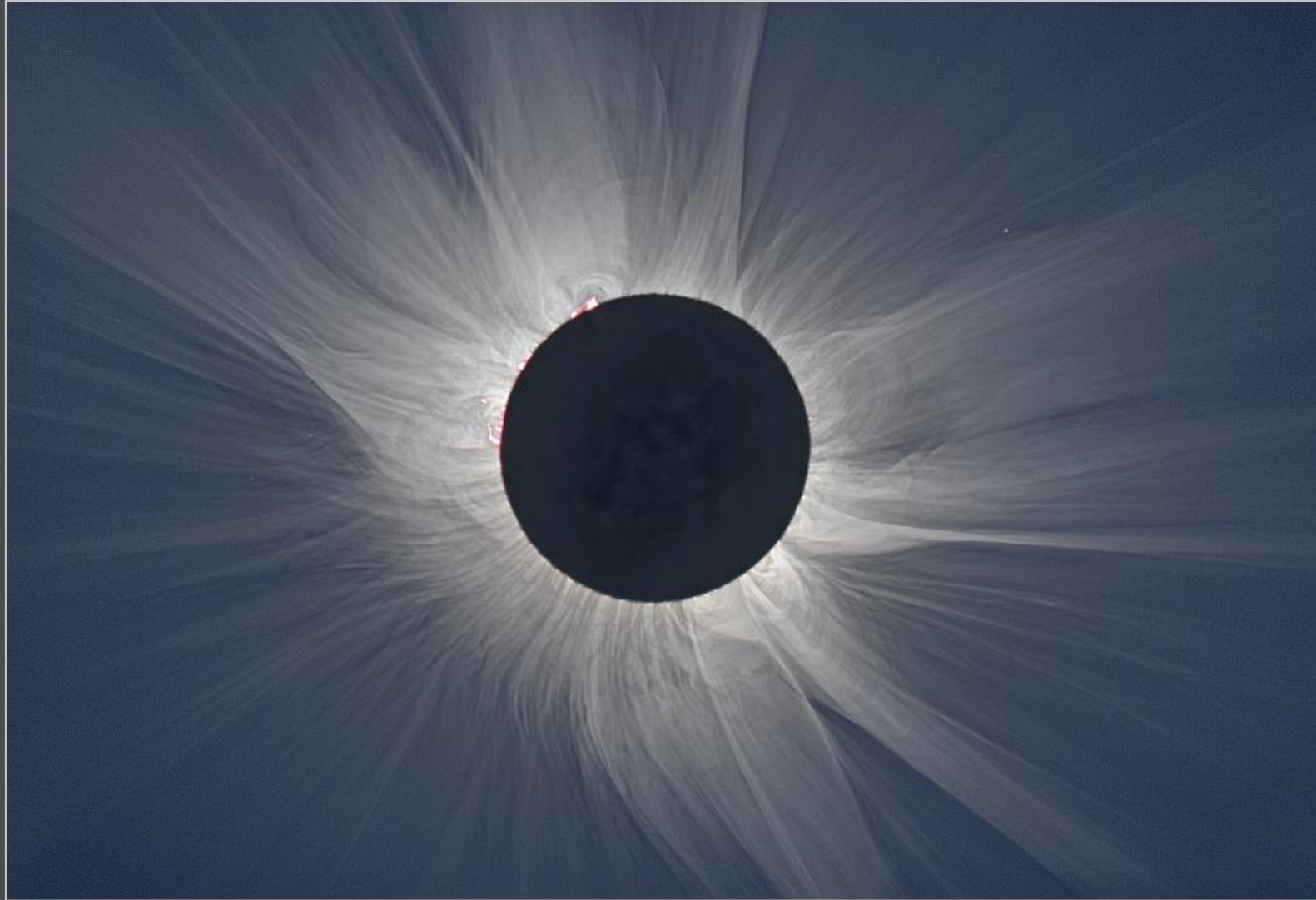
HDR – Lune cendrée



HDR – Lune ordinaire – 1/100, 1/64, 1/50, 1/32, 1/10



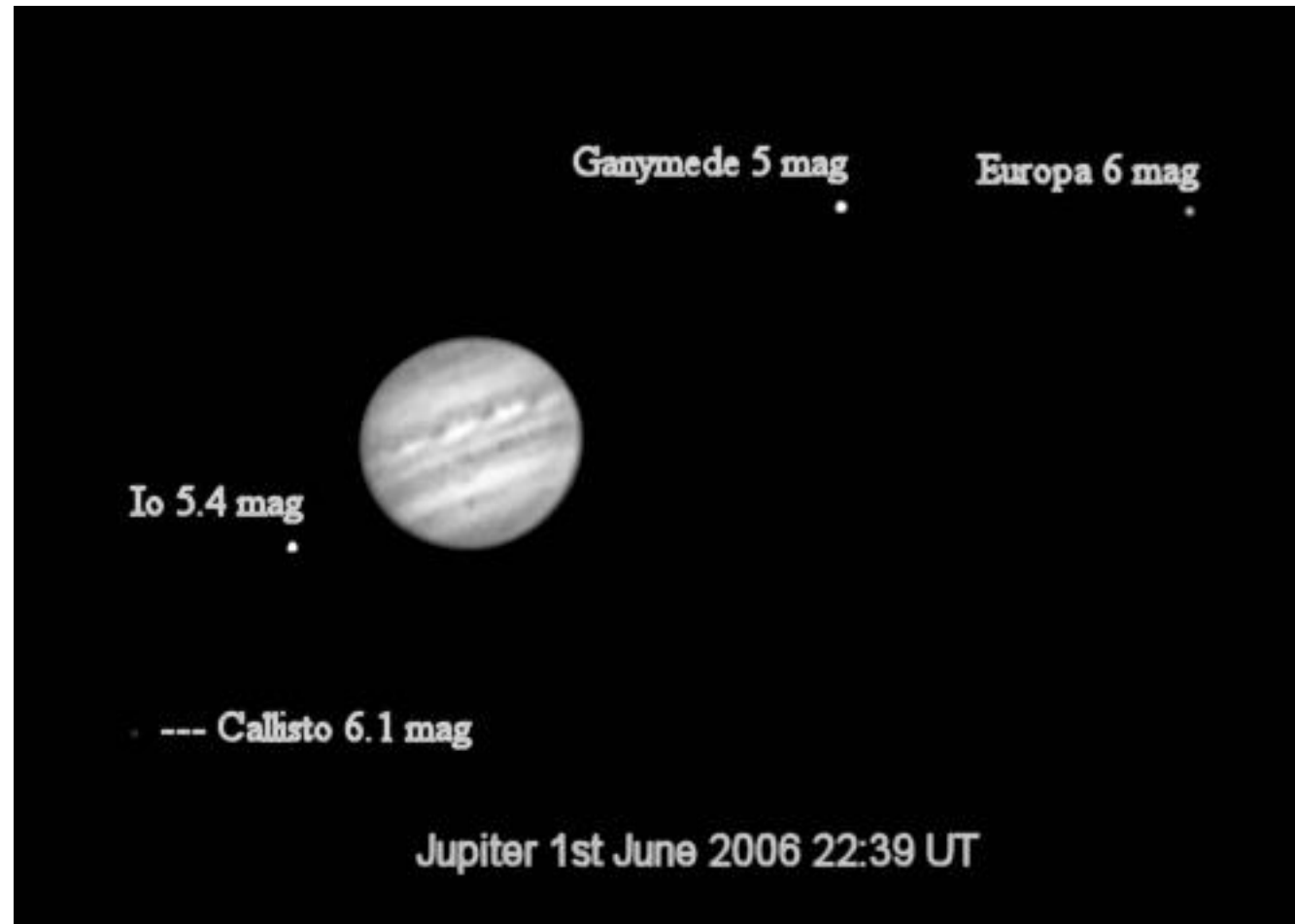
HDR – Éclipse solaire



During a total solar eclipse, the Sun's extensive outer atmosphere, or corona, is an inspirational sight. Streamers and shimmering features that engage the eye span a brightness range of over 10,000 to 1, making them notoriously difficult to capture in a single photograph. But this composite of 29 telescopic images covers a wide range of exposure times to reveal the crown of the Sun in all its glory. The aligned and stacked digital frames were recorded in the cold, clear skies above the Arctic archipelago of Svalbard, Norway during the Sun's total eclipse on March 20 and also show solar prominences extending just beyond the edge of the solar disk. Remarkably, even small details on the dark night side of the New Moon can be made out, illuminated by sunlight reflected from a Full Earth.

HDR - Jupiter

- Photo surexposé pour voir les lunes
- Photo ordinaire pour voir la surface



HDR – Coucher de Soleil



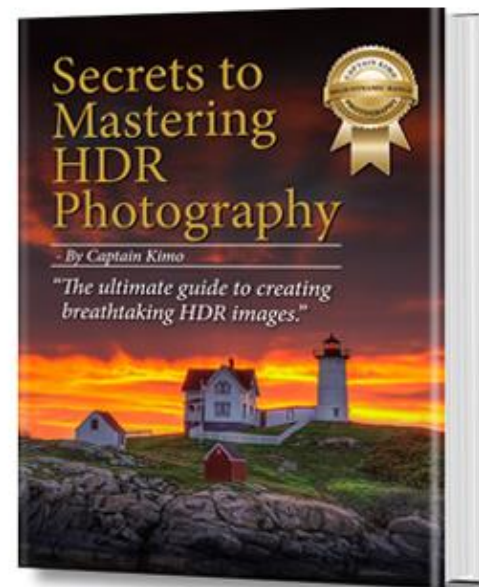
HDR Logiciels

January 2017 – Review of the **top 20 best HDR software** used for creating **high dynamic range** (HDR) photographs. I am currently working on a update to this post. If you have any HDR programs to add to this list please let me know.

I want to note that this is not an in-depth review. There is 20 HDR Software that I found and wanted to share. The goal with this post is to show you all the HDR Software available. I highly recommend that you download any software and try it yourself. When it comes to HDR I have a specific workflow and look but that doesn't mean my workflow or look will work for you.

Below in the order I recommend are the top 20 Best HDR Software for 2015. I downloaded and installed each HDR program to find out which software is the best.

1. [Aurora HDR](#) (5 Stars)
2. [EasyHDR](#) (5 Stars)
3. [Photomatix Pro](#) (5 Stars)
4. [HDR Projects 4](#) (4 Stars)
5. [Oloneo HDR](#) (4 Stars)
6. [SNS-HDR](#) (4 Stars)
7. [Machinery HDR](#) (4 Stars)
8. [Dynamic-Photo HDR](#) (3 Stars)
9. [HDR Darkroom](#) (3 Stars)
10. [HDR Expose](#) (3 Stars)
11. [HDR Efex Pro](#) (3 Stars)
12. [Luminance HDR](#) (3 Stars)
13. [PaintShop Pro](#) (3 Stars)
14. [Picturenaut](#) (3 Stars)
15. [Fusion](#) (2 Stars)
16. [Full Dynamic Range Tool](#) (2 Stars)
17. [Adobe Lighroom CC](#) (2 Star)
18. [Canon DPP](#) (2 Stars)
19. [Photomator](#) (2 Stars)
20. [HDRShop](#) (2 Stars)



Free HDR eBook

210 Page Tutorial by Captain Kimo
Enter your e-mail below...

Get FREE E-book!

HDR – Logiciels gratuits

Free – Low Range HDR Software – Price Range: FREE – \$11.99/month

1. **HDR Efx PRO** ★★★★★☆ (4 stars)
2. **Adobe Lightroom** ★★★★★☆ (4 stars)
3. **Adobe Photoshop** ★★★★★☆ (4 stars)
4. **Luminance HDR** ★★★★★☆ (3 stars)
5. **Fotor HDR** ★★☆☆☆☆ (2 stars)
6. **Picturenaut** – Review to Come
7. **Canon DPP** – Review to Come
8. **Simply Contrast** – Review to Come

Image stitching

- L'**assemblage de photos** est un procédé consistant à combiner plusieurs images numériques se recouvrant, dans le but de produire un panorama ou une image de haute définition.
- La **panographie** est une technique photographique consistant à composer une image à l'aide de plusieurs photographies se chevauchant.



IMG_6165.JPG



IMG_6166.JPG



IMG_6167.JPG



IMG_6168.JPG



IMG_6169.JPG



IMG_6170.JPG



IMG_6171.JPG



IMG_6172.JPG



IMG_6173.JPG



IMG_6174.JPG



IMG_6175.JPG



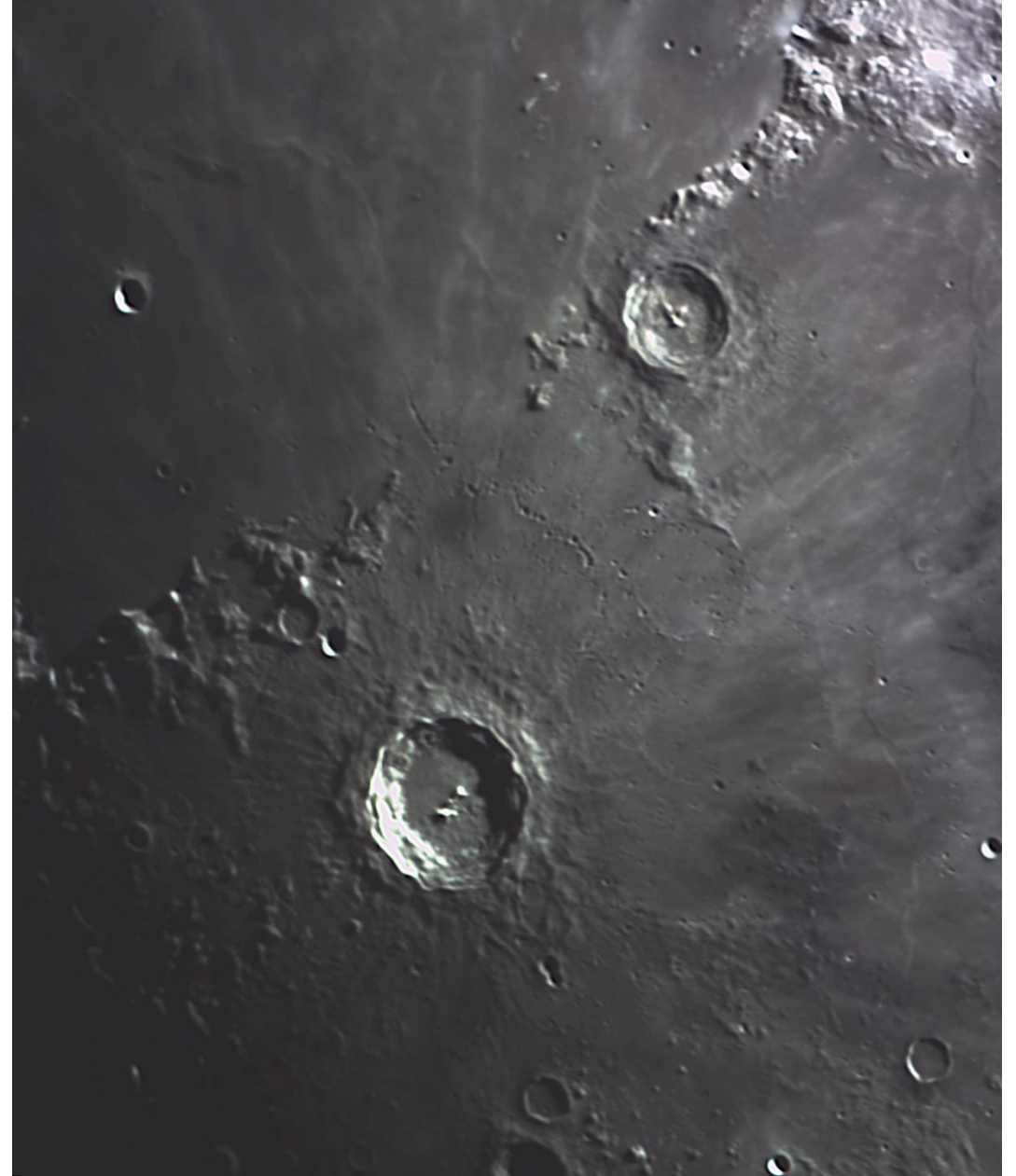
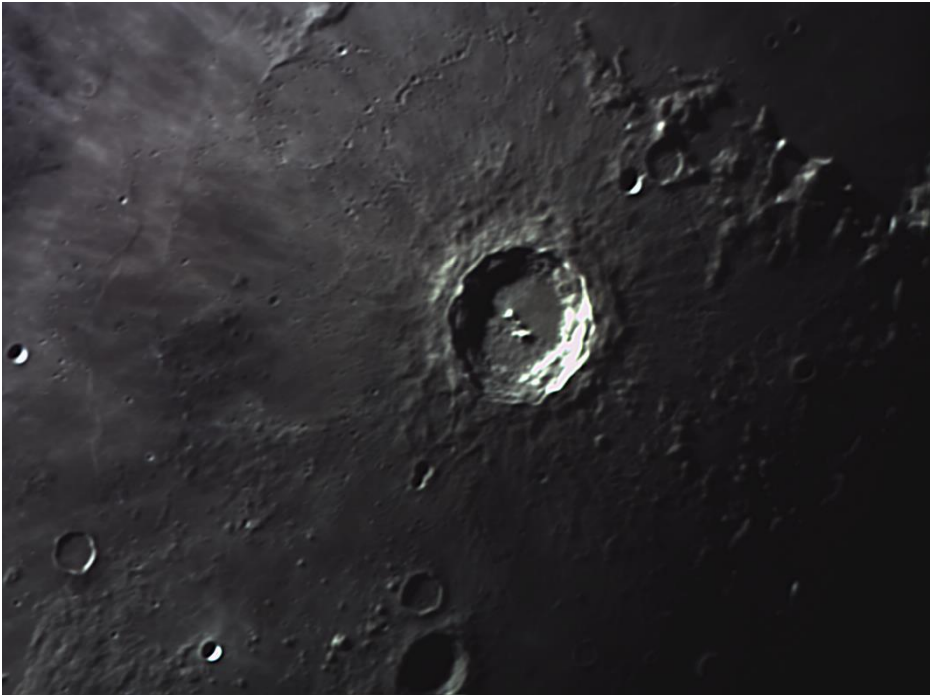
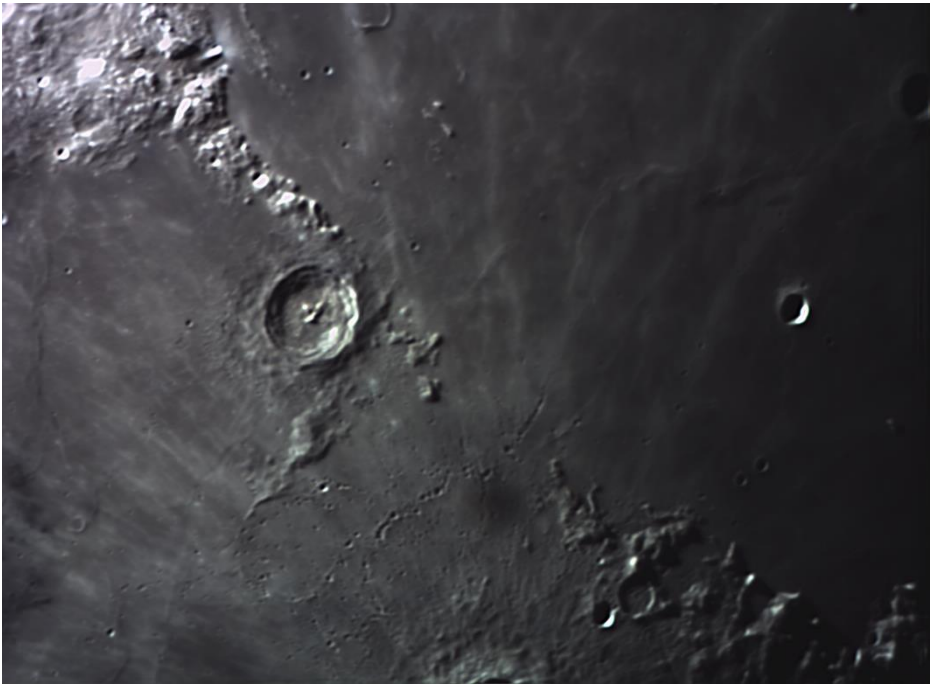
IMG_6176.JPG



Photo panoramique



Assemblage de photos lunaires



Assemblage de photos solaires



Logiciels d'assemblage

	Editor	Gigapixel	Quality of stitching	Price \$/€
Autopano Giga 4.4	Kolor	Yes (1)	*****	200
Autopano Pro 4.4	Kolor	Yes (1)	*****	100
PTGui 10.0	PTGui	Yes (2)	*****	70
PTGui Pro 10.0	PTGui	Yes	*****	150
PanoramaStudio	tshsoft	Yes (2)	****	150
Hugin 2017 - New !	Hugin	Yes (2)	*****	Free
Photomerge CC	Adobe	No	****	Subscr. (3)
Panoweaver 9.0	Easy pano	Yes	***	150
Software not updated				
ImageAssembler 3	Panavue	No	***	\$64
ImageAssembler 3 Pro	Panavue	Yes	****	\$129
Microsoft ICE	Microsoft	Yes	****	Free
Panorama Factory	panofact.	Yes	****	70

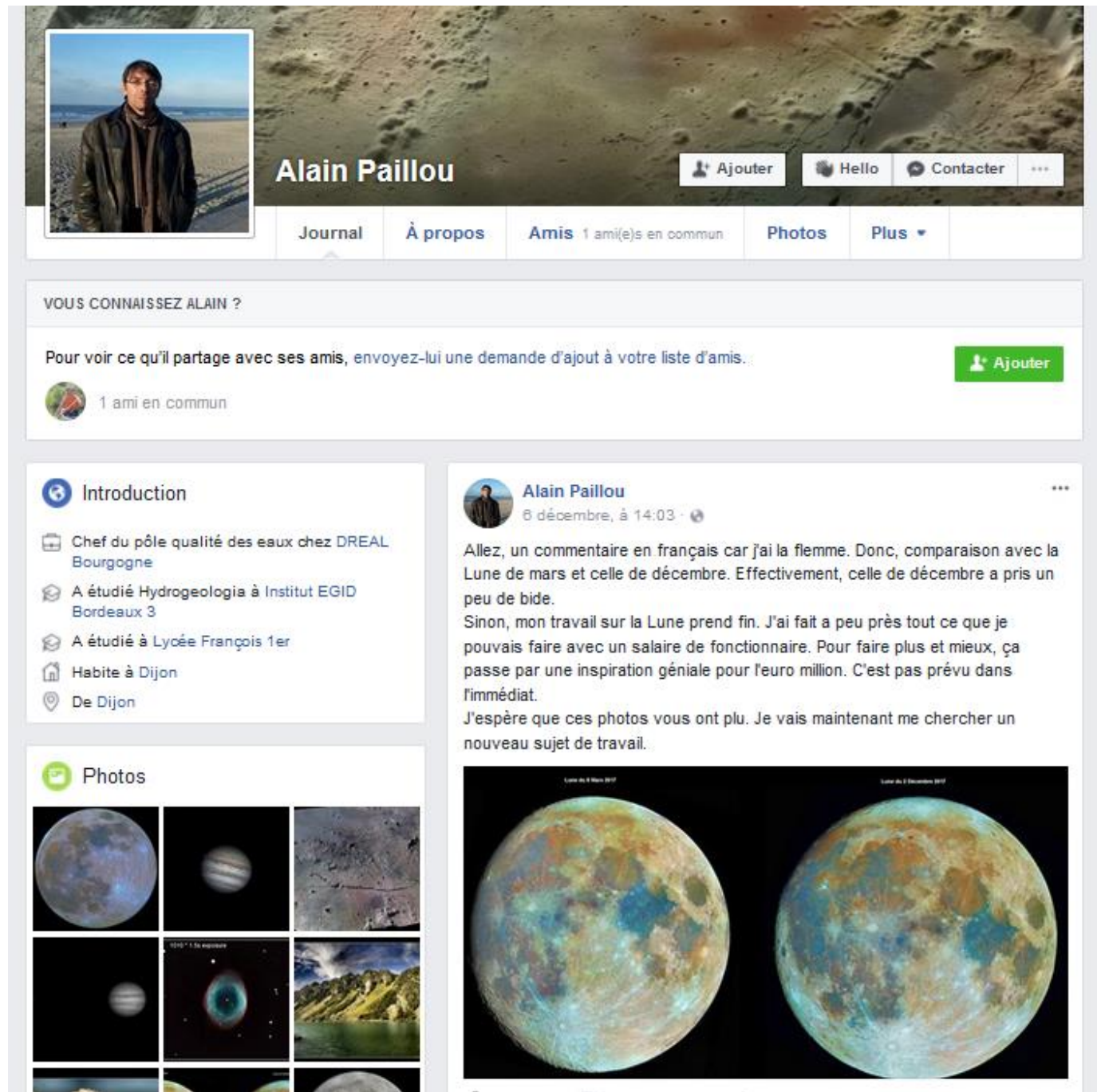
	App Name	Best for	Pros	Cons	Rating
1	Image Composite Editor	Everyone	Solid technology, easy to use, great results	Lacks advanced features, not updated in a while	★★★★★
2	AutoStitch	First time users	Simple automatic operation, minimal UI	Lacks manual control, only a few image editing options	★★★★☆
3	Hugin	Experienced users	Solid results, fast, beginner-friendly UI	Moderately high learning curve	★★★★☆
4	PTGui	Experienced users, professionals	Fast, impressive results, multiple panorama types supported	Slightly expensive for home users	★★★★☆
5	Autopano	Advanced creators, hobbyists	Professional results, neat UI, support for plugins	Somewhat wonky control point editor	★★★★☆
6	Affinity Photo	Casual use	Straightforward stitching, powerful editing capabilities	Lacks advanced dedicated options	★★★★☆
7	Photo Sticher	Home users	Range of options, easy to be up and running, very affordable	Manual control could be better	★★★★☆
8	Panoweaver	Professionals, experienced photographers	Excellent set of features, tons of automatic options	Expensive, can be overwhelming	★★★★☆
9	Panorama Maker	Beginners	Some good options, familiar user interface	Abandonware, no longer sold or updated	★★★★☆
10	Panorama Perfect Lite	Amateur photographers	Lightweight, good for basic editing	No longer updated, clunky UI	★★★★☆

Saturation des couleurs



Daniel Leclerc. Merci Julien! Capture en format RAW. Obtention des jpg avec Digital Photo Professional (Canon). Images rognées et centrées avec PIPP. Empilement des photos avec AutoStakkert. Ondelettes, alignement RGB et balance des couleurs avec RegiStax. Saturation avec TiM et Photoshop.

Alain Paillou



The image shows a Facebook profile page for Alain Paillou. At the top, there is a profile picture of a man in a dark jacket standing on a beach, and a cover photo of a rocky, reddish-brown landscape. The name "Alain Paillou" is displayed in the top right, with buttons for "Ajouter", "Hello", and "Contacter". Below the name are navigation tabs for "Journal", "À propos", "Amis 1 ami(e)s en commun", "Photos", and "Plus".

Below the navigation tabs, there is a section titled "VOUS CONNAISSEZ ALAIN ?" with the text "Pour voir ce qu'il partage avec ses amis, envoyez-lui une demande d'ajout à votre liste d'amis." and a green "Ajouter" button. Below this, it says "1 ami en commun" with a small profile picture icon.

The "Introduction" section lists the following information:

- Chef du pôle qualité des eaux chez DREAL Bourgogne
- A étudié Hydrogeologia à Institut EGID Bordeaux 3
- A étudié à Lycée François 1er
- Habite à Dijon
- De Dijon

The "Photos" section shows a grid of images, including a full moon, a planet with rings, a close-up of a rocky surface, a planet with rings, a blue ringed planet, and a landscape with green hills and a blue sky.

Below the "Photos" section, there is a post by Alain Paillou dated "6 décembre, à 14:03". The post text reads:

Allez, un commentaire en français car j'ai la flemme. Donc, comparaison avec la Lune de mars et celle de décembre. Effectivement, celle de décembre a pris un peu de bide.

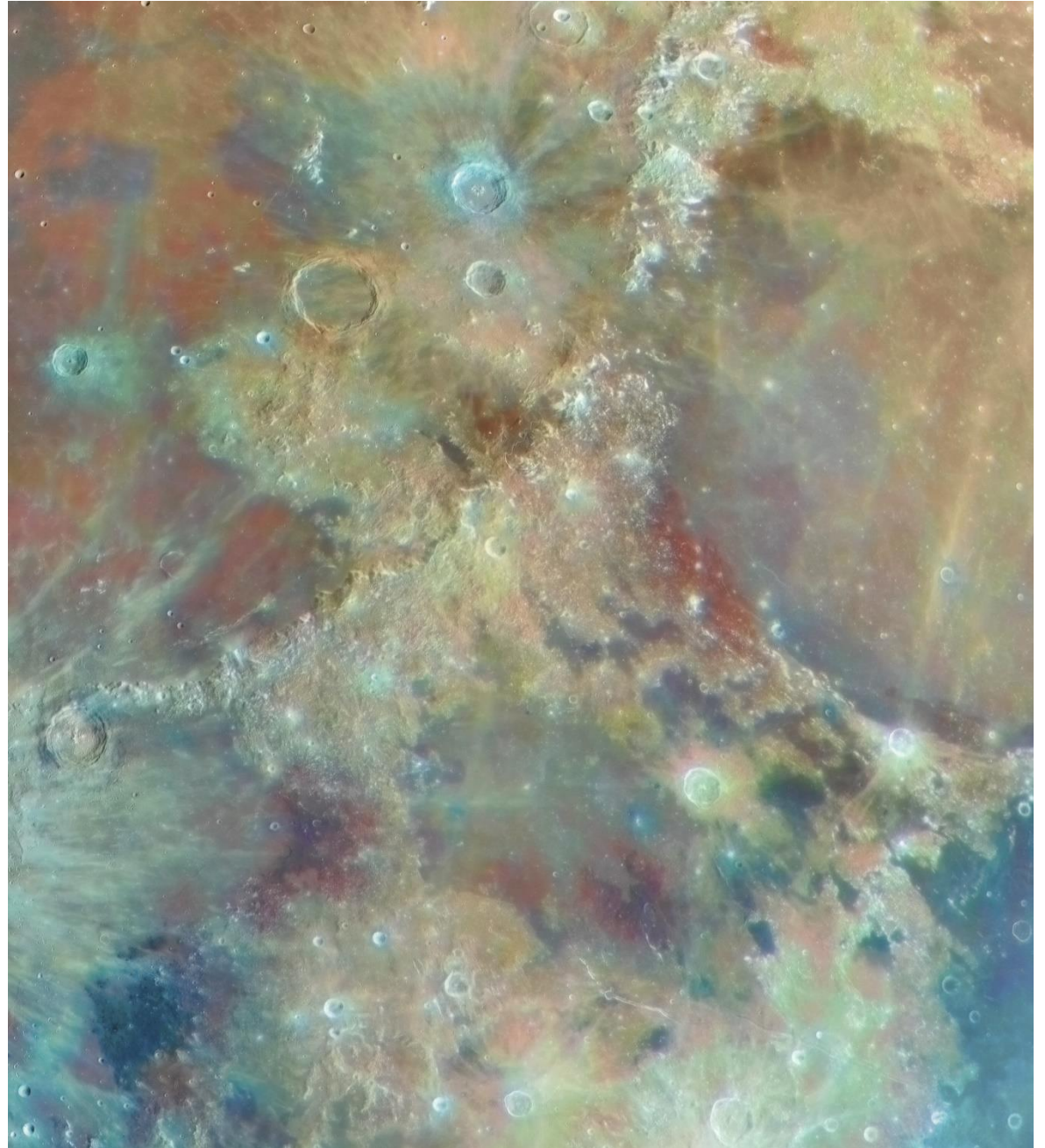
Sinon, mon travail sur la Lune prend fin. J'ai fait à peu près tout ce que je pouvais faire avec un salaire de fonctionnaire. Pour faire plus et mieux, ça passe par une inspiration géniale pour le euro million. C'est pas prévu dans l'immédiat.

J'espère que ces photos vous ont plu. Je vais maintenant me chercher un nouveau sujet de travail.

Below the text, there are two side-by-side images of the moon. The left image is labeled "Lune du 6 Mars 2017" and the right image is labeled "Lune du 6 Décembre 2017". Both images show the moon with a colorized surface, highlighting different regions in shades of blue, green, and brown.

A Colourful Moon by Alain Paillou.

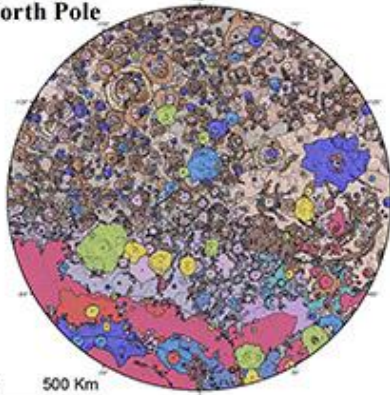
Explanation: The Moon is normally seen in subtle shades of grey. But small, measurable color differences have been greatly exaggerated in this mosaic of high-resolution images captured near the Moon's full phase, to construct a multicolored, central moonscape. The different colors are recognized to correspond to real differences in the mineral makeup of the lunar surface. Blue hues reveal titanium rich areas while more orange and purple colors show regions relatively poor in titanium and iron. The intriguing Sea of Vapors, or Mare Vaporum, is below center in the frame with the sweeping arc of the lunar Montes Apenninus (Apennine Mountains) above it. The dark floor of 83 kilometer diameter Archimedes crater within the Sea of Rains, or Mare Imbrium, is toward the top left. Near the gap at the top of the Apennine's arc is the Apollo 15 landing site. Calibrated by rock samples returned by the Apollo missions, similar multicolor images from spacecraft have been used to explore the Moon's global surface composition.



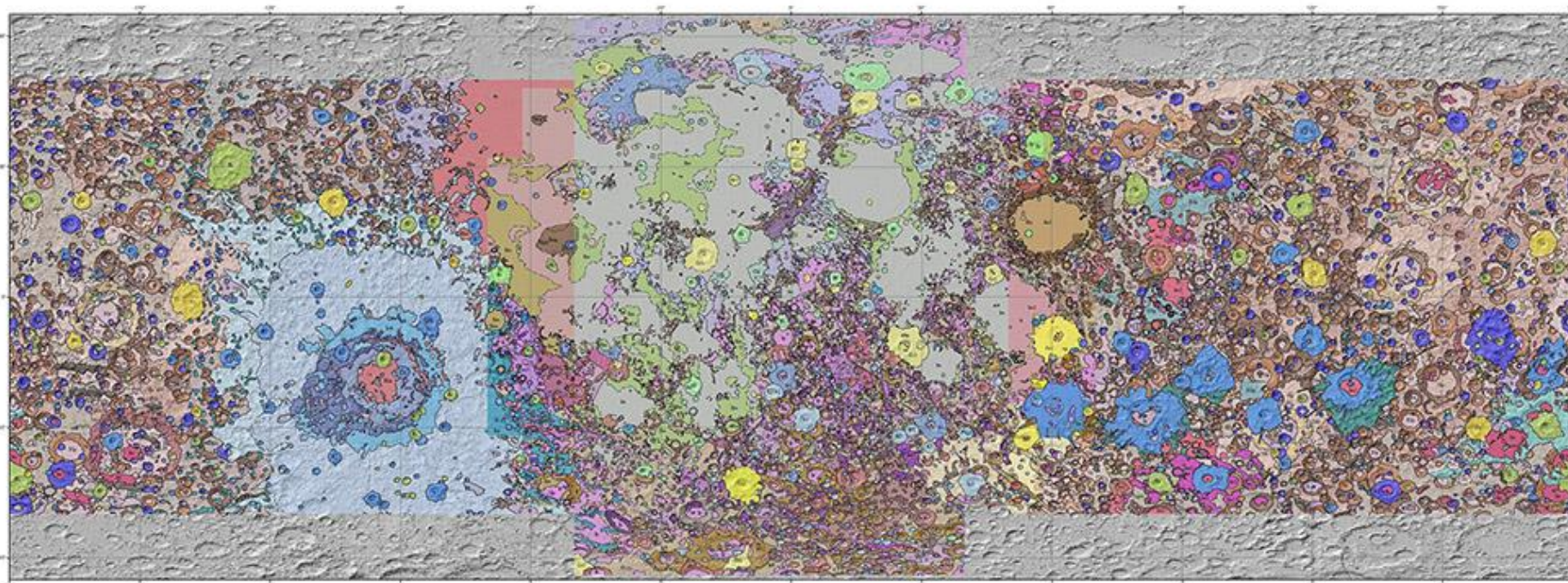
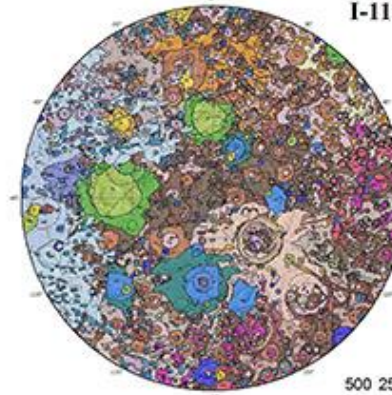
Carte géologique de la Lune

Lunar Geologic Renovation (2013)

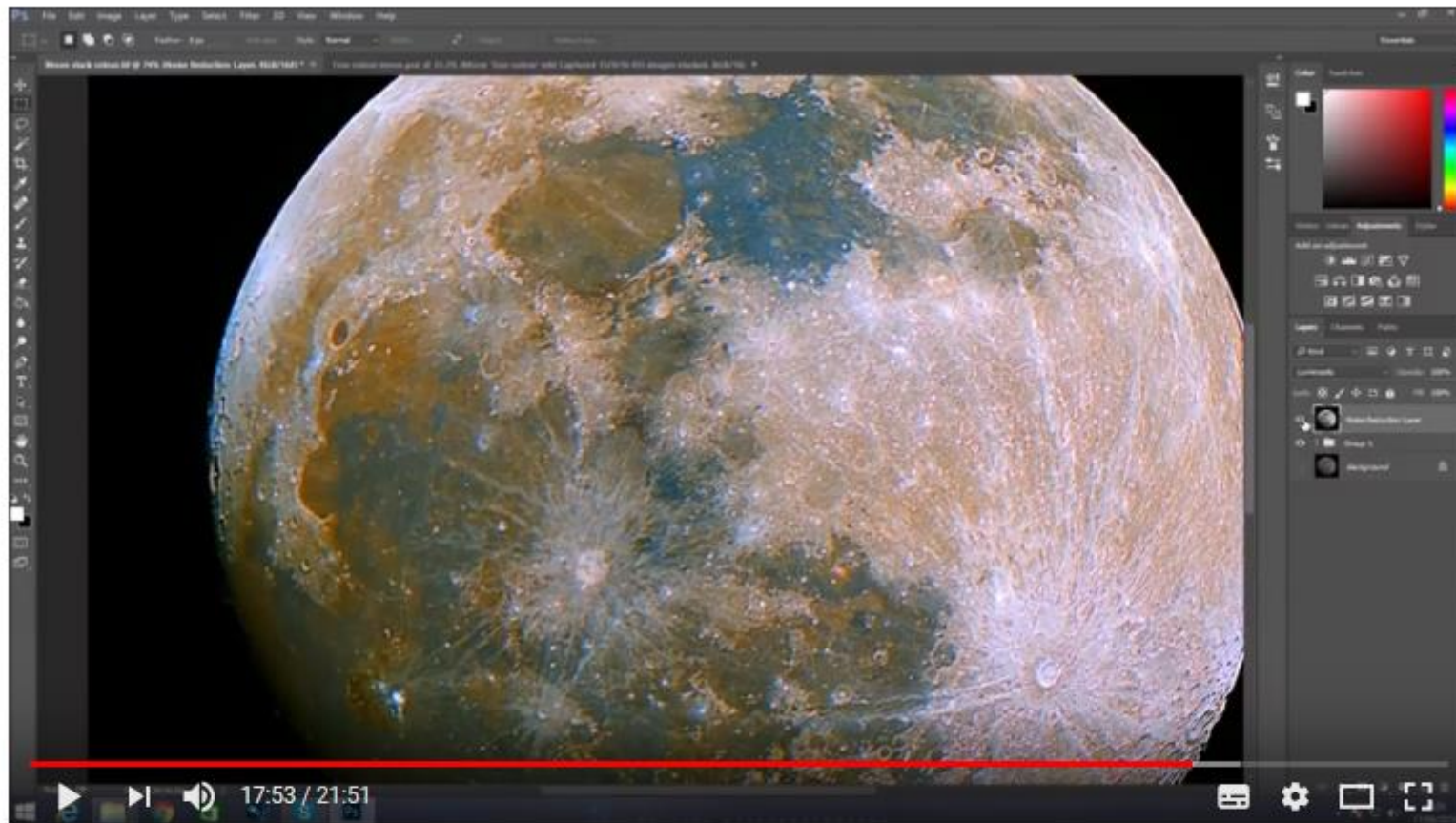
I-1062 North Pole



I-1162 South Pole



0 250 500 1,000 1,500 Km



True Colour Moon Tutorial

4 438 vues

👍 65 💬 3 ➦ PARTAGER ☰ ⋮



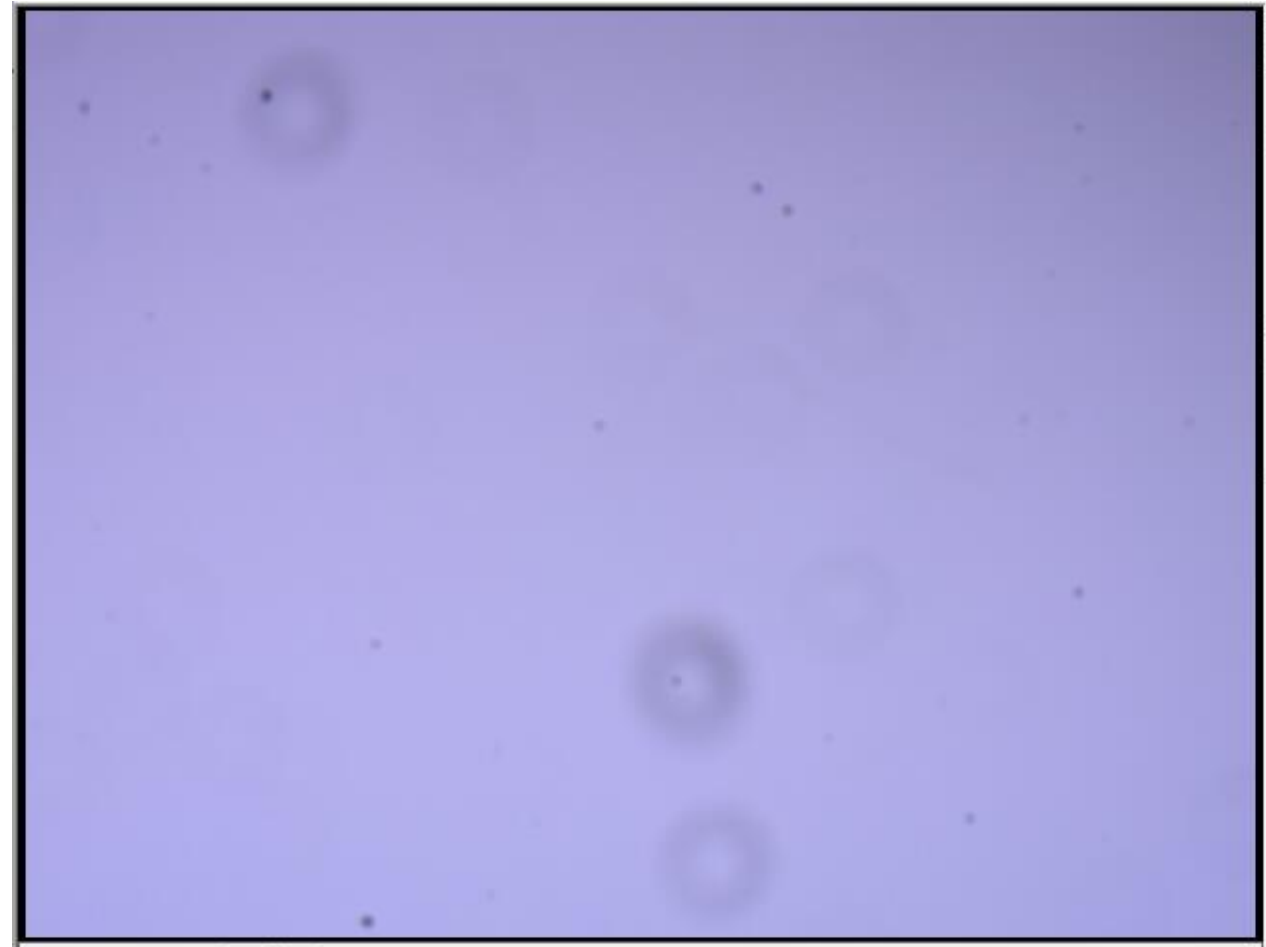
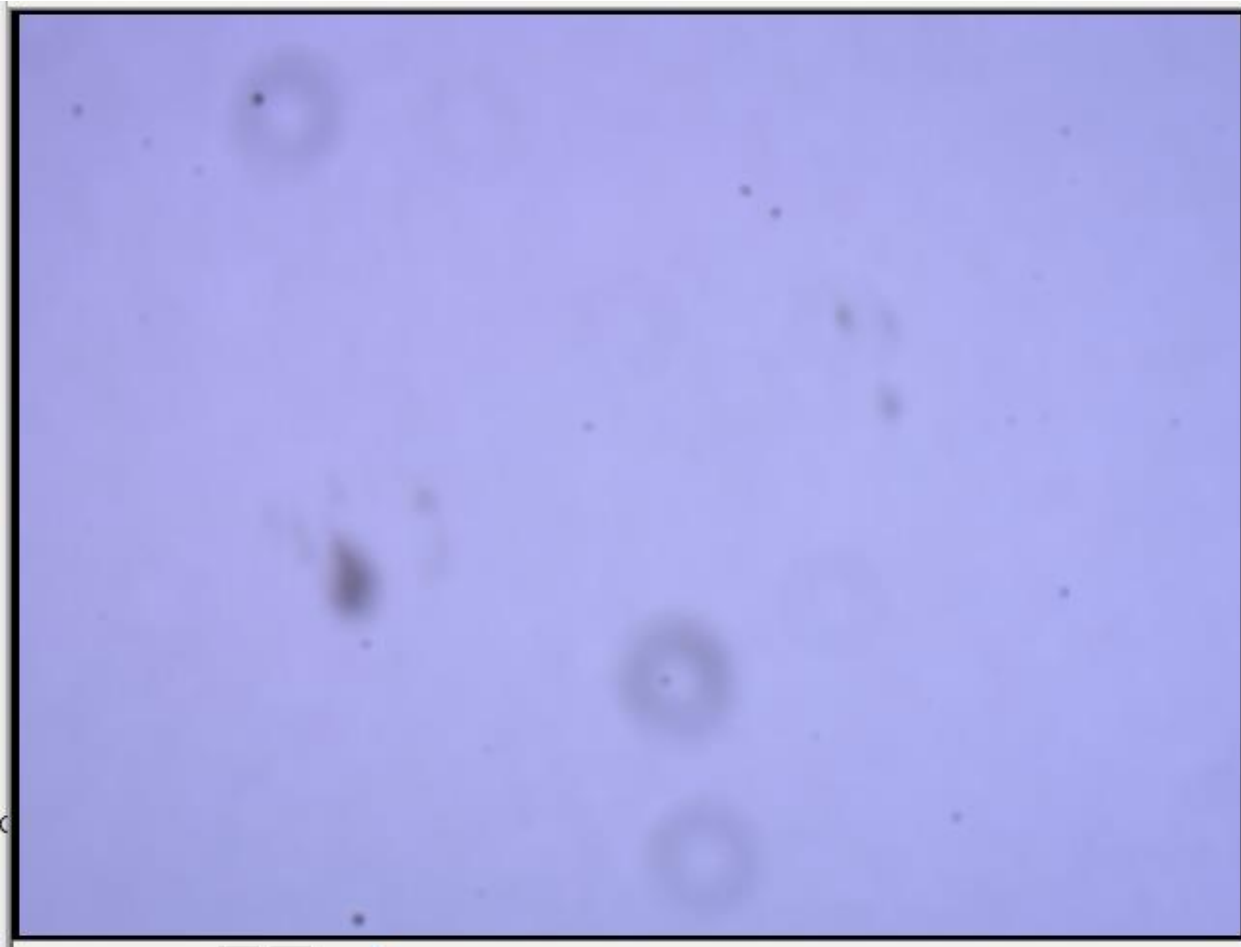
RuzzyShuya

Ajoutée le 17 sept. 2016

S'ABONNER 55

I received a good reception for my first true colour moon picture I made and a few people asked me how I did it. So I decided to make a tutorial. I stumble on my words sometimes but eh, I feel like I get the most important stuff across. I want to do some more astronomy and astrophotography

FLAT – PLU (Plage de Lumière Uniforme)



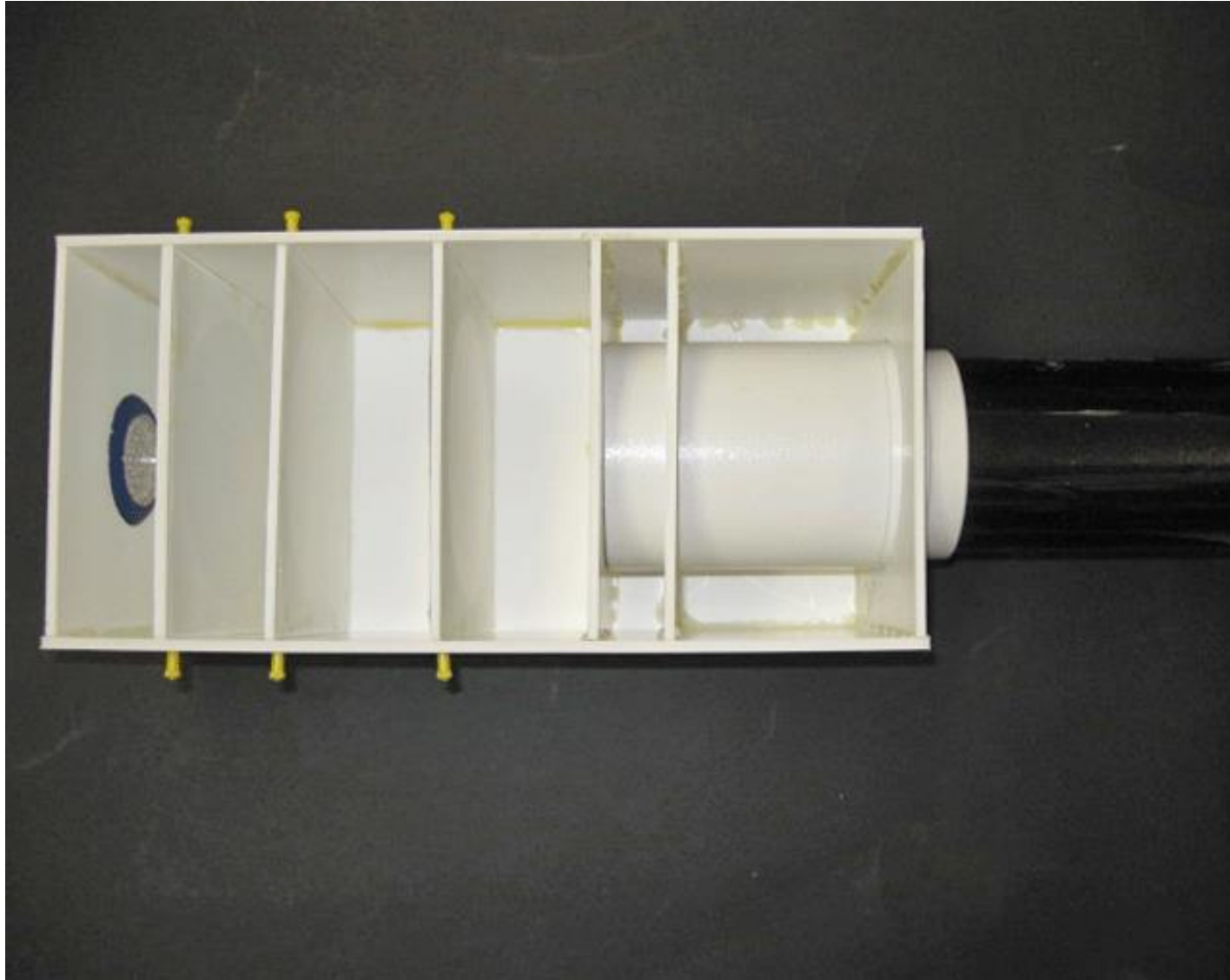
PLU avec un t-shirt le matin

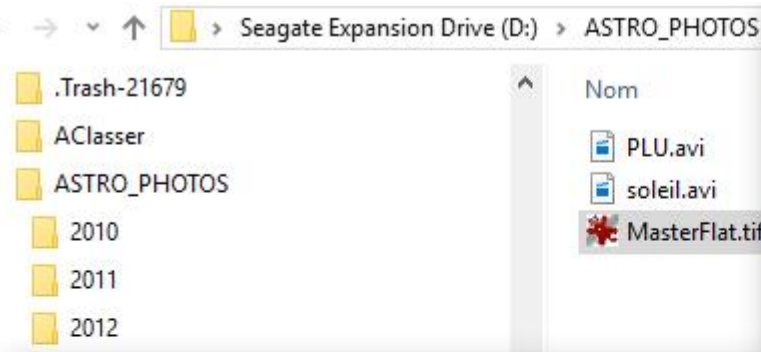


PLU avec t-shirt, la nuit avec un panneau électroluminescent



Boîte à PLU





AutoStakkert! 2.6.8 - free for non-commercial use © Emil Kraaikamp

File Memory Usage Color Advanced Image Calibration Help

1) Open Limit Frames

Image Stabilization

Surface Planet (COG)

Improved Tracking

Expand Cropped

Quality Estimator

Edge Gradient

Noise Robust 4

Normal range

Local (AP)

Global (Frame)

2) Analyse

Reference Frame

Last Stack is Reference

Auto size (quality based)

0%
50%

Cancel...

soleil.avi Processing...

Frames 1

Image Size Width 640 Height 480

offset 0,0 remember

Visualisation Details Draw AP's Play

Scaling (FIT/SER) Auto Range 16 bit(A)

Display Options Brightness 1 x Does NOT alter data!

Export Frame(s) Current All As displayed here

Zoom 100%

Alignment Points 0 APs Clear

Manual Draw

Click in image to add an alignment point AP Size

48

24 48 104 200

Auto AP

Min Bright 30

Place AP grid

Replace

rgb (, a)
frame # 1/1647
quality:3,0
l: 0,0 (48605,7) 219,0 (bg 166,3)

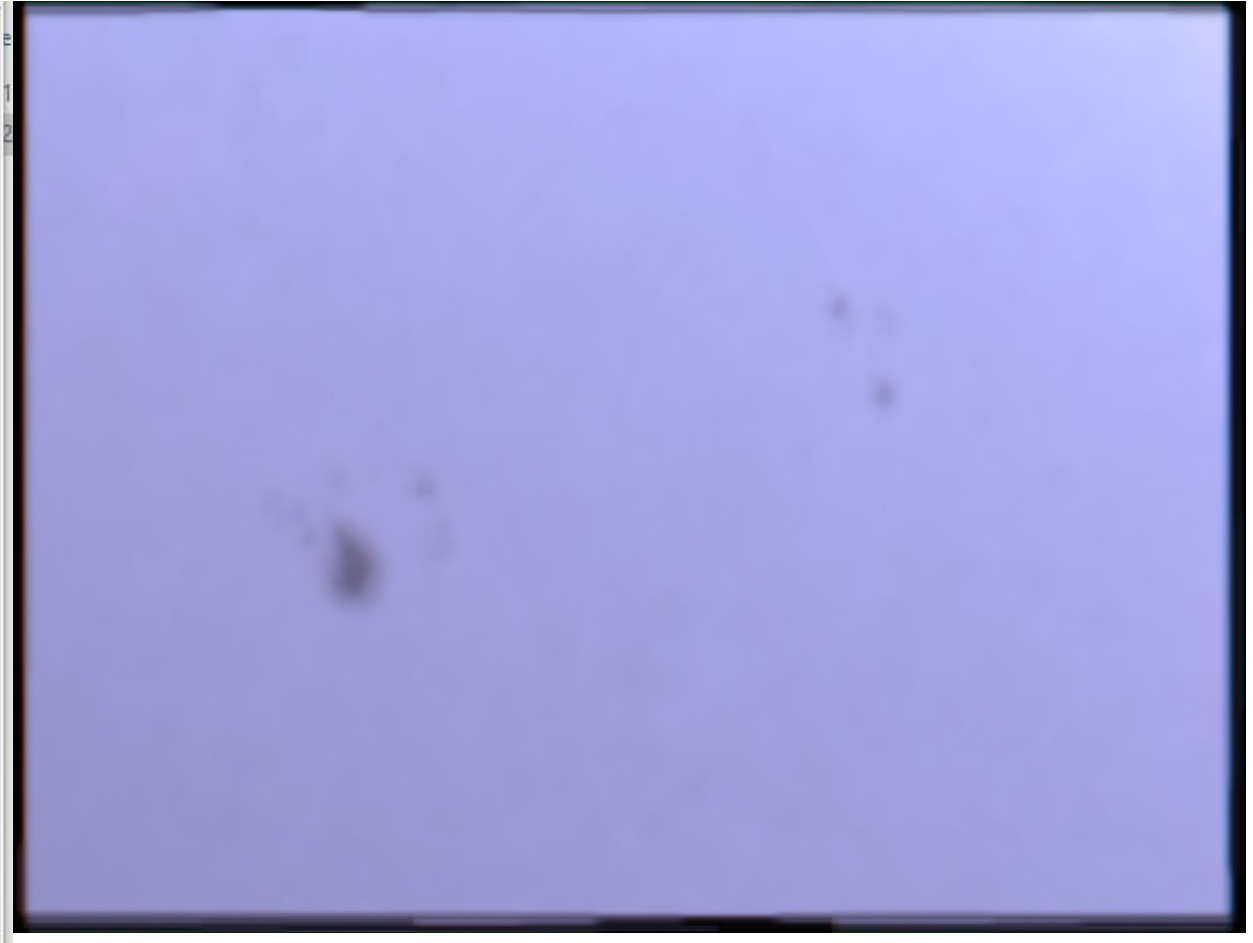
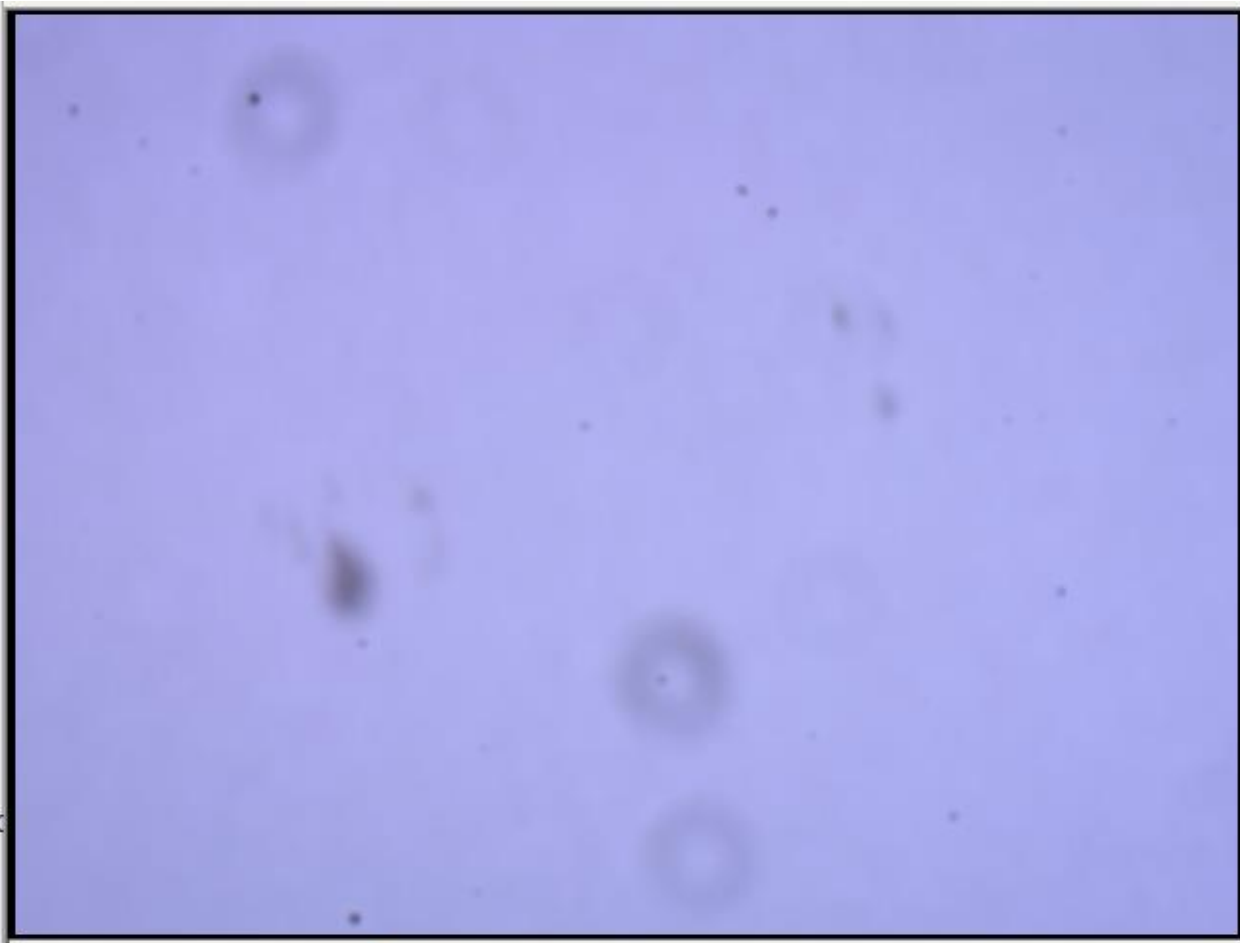
image stabilization anchor

Drizzle 1.5 X 3.0 X

Resample 2.0 X

3) Stack

Image filtrée

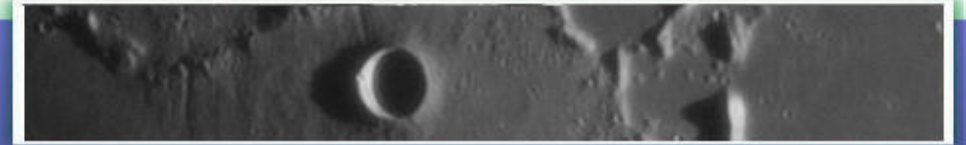


Registax 6

RegiStax⁶

[Home](#)[Download](#)[Preview V6](#)[Links](#)[About](#)

Free image processing software



REGISTAX 6 RELEASED

Email : registax@gmail.com

RegiStax Articles

Cor Berrevoets:

- Trapping noise
- Dealing with AVI-files

Bob Pilz:

- Lunar AVI's

Eric Roel:

- Solar Prominences

Sylvain Weiller:

- Solar H-Alpha zones

Ken Hough:

- RegiStax under Linux

Downloads

version 6(2apr2011)

version 5(7apr2010)

MAY 6 RegiStax 6 update available

6

The 1st update of RegiStax 6 is available for download from the downloadpage. This update only replaces the executable file of RegiStax and needs to be installed in the same directory where RegiStax 6 has been installed, you should NOT uninstall.

[Download Release 6.1.0.8 \(1.6 Mb\)](#)

Find below the most important changes of this update, if you have issues that are not solved with this update please report them.

General improvements:

- large AVI's (that needed the extended mode from RegiStax 5) now also use multicore to read frames.
- when using larger wavelet-filters (problem also existed in R5) spurious edges could appear on the image (horizontal striping), this is now solved.
- when saving a wavelet-scheme the new "linked wavelet-setting" is also saved.

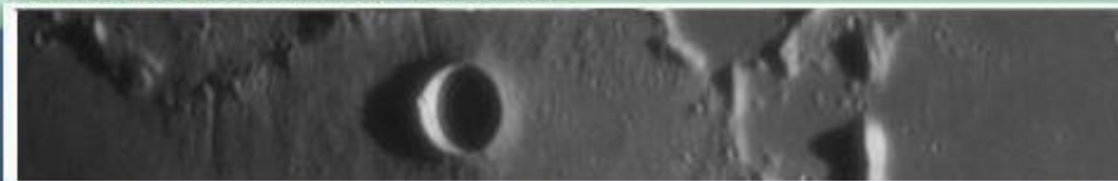
Solves the following issues reported:

- debayering often leads to dim nearly B/W images after stacking
- RGB-Align causes red/blue image-edges in the resulting image.
- when LRGB is checkmarked (at stack) the final image at wavelets is black.
- Avi's that have a non-zero starting position (reported when the AVI is loaded in Virtualdub) do not load.
- centre of rotation (at wavelets) cannot be set
- loading a previously saved Gamma doesn't work

[Home](#)[Download](#)[Preview V6](#)[Links](#)[About](#)

RegiStax⁶

Free image processing software



Email : registax@gmail.com

Registax 6 software for alignment/stacking/processing of images

Free software for alignment/stacking/processing of images

Copyright © 2010/2011 Cor Berrevoets (The Netherlands).

RegiStax 6 Development team :

Cor Berrevoets (The Netherlands),

Bart DeClerq (Belgium) ,
Dmitry Makolkin (Russia),
Bob Pilz (United States) ,
Eric Roel (Mexico),

Tony George (United States),
Paul Maxson (United States),
Pavel Presnyakov (Ukraine),
Sylvain Weiller (France)

Process Do All Save image Realign_with Processed Stack Again Show Full Image Show Processing Area Show AlignPoints

Wavelets Reset Wavelets

Automatic
 Hold Wavelet Setting

Waveletscheme
 Dyadic (2^n) Linear

Initial Layer: 1 Step Increment: 0

Wavelet filter
 Default Gaussian

Use Linked Wavelets

Layer	Denoise	Sharpen	Preview
<input checked="" type="checkbox"/> 1	0,50	0,140	55,8
<input checked="" type="checkbox"/> 2	0,40	0,130	45,4
<input checked="" type="checkbox"/> 3	0,30	0,120	31,2
<input checked="" type="checkbox"/> 4	0,20	0,110	18,3
<input checked="" type="checkbox"/> 5	0,00	0,100	6,1
<input checked="" type="checkbox"/> 6	0,00	0,100	1,0

Available schemes

Load Scheme Save Scheme



Functions

Histogram	Gamma	Colour Mixing
View Zoomed	View Compare	View Stacksize
Flip and Rotate	RGB Align	RGB Balance
Resize Image	Denoise/Deringing	Wavelet Filter
Masking	Show Linegraph	Cropping Area

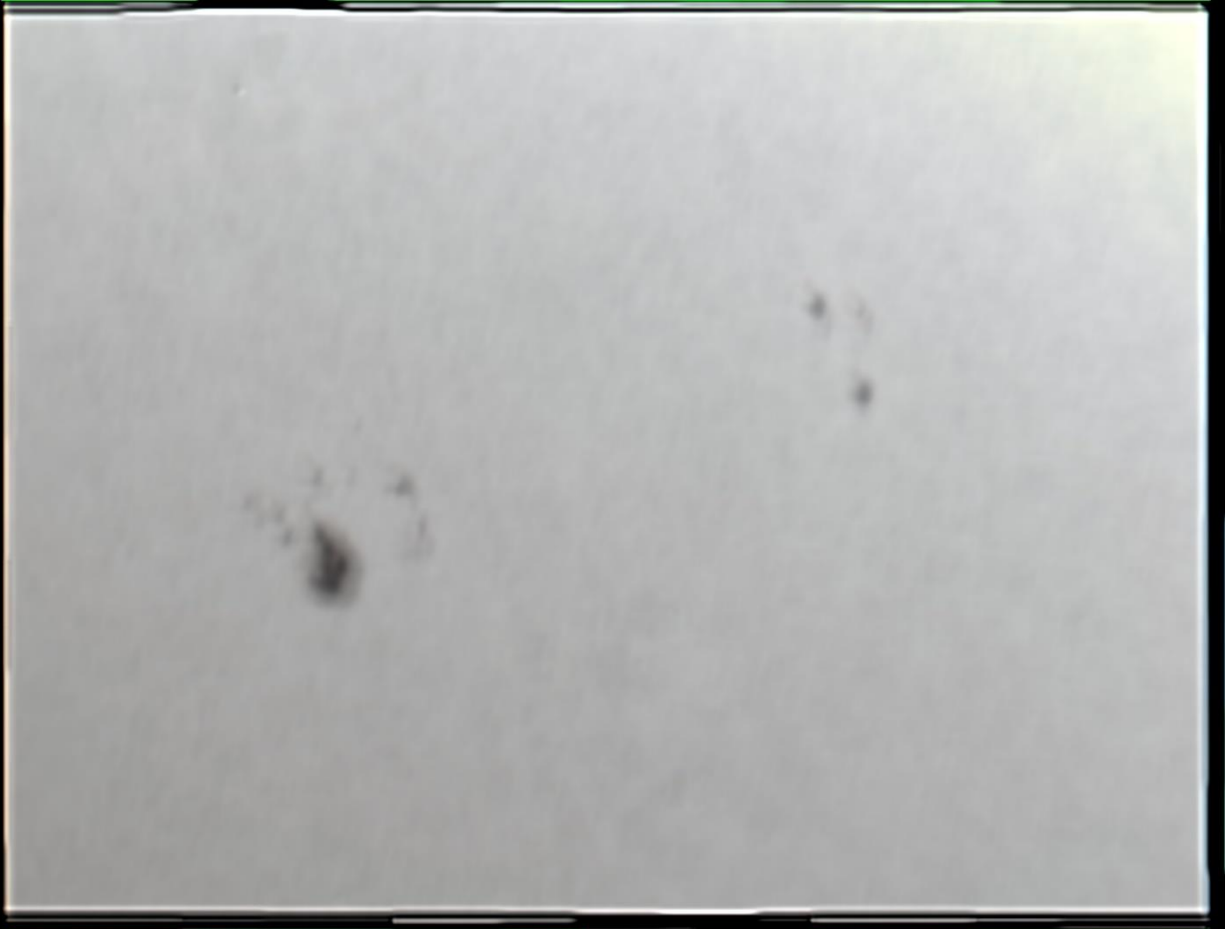
Contrast/Brightness Hold Reset

Contrast: 100 Brightness: 0

Copy To Load to Difference

Toggle
 Current Image
 Clipboard Image

Use file from Clipboard



Wavelets Reset Wavelets

Automatic
 Hold Wavelet Setting

Waveletscheme
 Dyadic (2^n) Linear

Initial Layer: 1 Step Increment: 0

Wavelet filter
 Default Gaussian

Use Linked Wavelets

Layer	Denoise	Sharpen	Preview
<input checked="" type="checkbox"/> 1	0,00	0,100	1.0
<input checked="" type="checkbox"/> 2	0,00	0,100	1.0
<input checked="" type="checkbox"/> 3	0,00	0,100	1.0
<input checked="" type="checkbox"/> 4	0,00	0,100	1.0
<input checked="" type="checkbox"/> 5	0,00	0,100	1.0
<input checked="" type="checkbox"/> 6	0,15	0,120	28,8

Available schemes

Load Scheme Save Scheme



Functions

Histogram	Gamma	Colour Mixing
View Zoomed	View Compare	View Stacksize
Flip and Rotate	RGB Align	RGB Balance
Resize Image	Denoise/Deringing	Wavelet Filter
Masking	Show Linegraph	Cropping Area

Contrast/Brightness Hold Reset

Contrast: 100 Brightness: 0

Copy To Load to Difference

Toggle

Current Image
 Clipboard Image

Use file from Clipboard

Conclusion

L'astrophoto, c'est du zigonnage, du tataouinage et du bizounage sur ordinateur durant les nombreuses soirées nuageuses.

Clear skies

ASTRONOMER



What my friends think I do



What my mom thinks I do



What society thinks I do



What the university thinks I do



What I think I do



What I really do

Conclusion

**IF YOU GET YOUR KIDS INTERESTED
IN ASTROPHOTOGRAPHY**



ASTRONOMONO

**THEY'LL NEVER HAVE MONEY FOR
ALCOHOL OR DRUGS**